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UNIVERSITY.... University of Alberta.....

DEGREE FOR WHICH THESIS WAS PRESENTED.. Master of Arts...

YEAR THIS DEGREE GRANTED... 1973.....

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THE UNIVERSITY OF ALBERTA

PHYSICAL ACTIVITY IN MIDDLE-AGED MEN: INCENTIVES FOR PARTICIPATION OR AVOIDANCE

by

© ARTHUR C. BURGESS

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF ARTS

DEPARTMENT OF PHYSICAL EDUCATION

EDMONTON, ALBERTA

FALL, 1973

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ABSTRACT

This study was a preliminary exploration of the incentives for involvement or avoidance of participation in sport and physical activity of fifty middle-class men over age twenty-five. This population was comprised of two test groups of twenty-five men who were judgementally selected on the basis of age, education and duration of participation or avoidance of sport and physical activity.

A focused interview and rating scales with four written questionnaires were developed as evaluative instruments. These were used to test both groups as to their Childhood Sport and Physical Activity Environment perception of their own activity level, a personal evaluation of their own health and their secondary participation in sport. Additionally, the participant group were evaluated as to their incentives for starting and for continuing their activity while the non-participants were evaluated as to their attitudes to their possible future involvement and reasons for present non-involvement.

The two groups were found to be significantly different ($p > .05$) in most of the areas in which differences were hypothesized. Viz., active men were found to have more favorable childhood environments, to be more physically active throughout their lives and to perceive themselves as being very active with excellent health. The non-active men were found to have less favorable childhood

environments, to more frequently choose sedentary or quiet activities as recreations. The perception of their own health and their level of activity was significantly lower than the active men. The population fell into five attitude classifications ranging from actively positive to completely negative. Notable was the attitude disposition of the non-participants of whom fifty-six per cent were positively disposed to participation in sport and physical activity but yet who did not themselves participate.

Typologies within both groups were developed. Three general types of active men were identified. On the basis of reasons for non-participation, five typologies of non-participants appeared.

The effects of marriage and establishment in a profession on the participation habits of this group was discussed. On the basis of these findings, a number of promotional strategies were suggested.

ACKNOWLEDGEMENTS

This thesis is dedicated to my parents.

My Mother: Christina Davidson Burgess created a climate which furthered reading, inquiry and the exchange of ideas. She died long before this work or even the idea of university training had been imagined. Without her early encouragement, this work would never have been.

To my Father: A.C. "Tommy" Burgess I owe many of the attitudes and ideals which underlie this work. He was a worker in this field in a time when professional training was not nearly as needed or valued as it now is. A man of wonderful energy and enthusiasm; his work is well remembered, yet.

I would like to thank the members of my committee, Dr. M.L. Van Vliet and Dr. J. Dunn for their sincere interest in this project. Especial thanks to my committee Chairman, Dr. H. Scott, for his patience and good humour as I proceeded through the evolution of this thesis.

To my children, David, Terry, Karen, Brian and Art Jr. I acknowledge a debt of companionship, play and the joy of living together. This will be repaid.

Finally, I would like to thank my wife Dorothy who has been a constant source of support and encouragement, always.

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CHAPTER I

THE PROBLEM

Introduction

Much has been written about the apparent physical inactivity of Canadians. The Prime Minister has expressed the concern of the national government about the increasing costs of health care which are seen as associated with declining national fitness (Trudeau, 1972).

A number of studies give weight to this concern. In the Vancouver area a study disclosed that reading and television-watching were more popular by a ratio of two to one than light physical activity (Barnhill, 1968:3). A recent national survey of Canadian recreational past-times reported that less than two per cent of the population are physically active once a week (Participaction, 1972). Statistics Canada (1972) data indicates that 86.6 per cent of men twenty-five to sixty-five years of age do not spend any time in physical activity during a week. Why should a nation like Canada, with such a high standard of living, have such a low level of physical fitness? Why do Canadians as a group tend to avoid physical activity? Sport and physical activity in Canada are seen as appropriate activities for children and young adults. However, participation in vig-

orous activities is not regularly observed among adults over age twenty-five. While the few organizations promoting adult participation report successful programs, there seems to be little general understanding of why some adults participate actively while others just as actively avoid the physical recreations. It is towards an understanding of this problem that this study is directed.

Statement of the Problem

This study is directed at two groups of middle-aged men and their incentives either to be involved in, or to avoid involvement in sport and physical activity.

Specifically, the following aspects of sports and physical activity involvement will be studied:

1. Childhood Sport and Physical Activity Environment.--
   (a) What was the status of sport and physical activity within the family of orientation of the subjects?
   (b) To what degree were the parents and siblings of the subjects involved in sport and physical activity?
   (c) To what degree was the subject involved in sport and physical activity during his childhood and young adulthood?
2. Activity Involvement History.--
   (a) What was the nature of the recreations and pastimes of the subjects who were not active in sport and physical activity?

(b) What was the nature of the sport and physical activity involvement of the persistently active subjects?

(c) What was the activity repertoire of those subjects non-active in sport and physical activity?

(d) What was the activity repertoire of the subjects who were persistently active in sport and physical activity?

3. Attitudes and Incentives Towards Sport and Physical Activity.--

(a) What were the attitudes towards involvement in sport and physical activity of the persistently active group?

(b) What were the incentives perceived by the persistently active group for their involvement in sport and physical activity?

(c) What were the attitudes towards sport and physical activity of the non-active group?

(d) What alternate incentives or negative incentives operate to prevent involvement in sport and physical activity by the non-active group?

4. Secondary Participation in Sport.--

(a) To what degree did the subjects make use of commercial spectator sport?

(b) What was the frequency of their use of television to watch sporting events?

(c) To what degree was radio or newspaper used as a source of sports information?

(d) To what degree did the subject discuss sports events with others?

(e) At what level of expertise did the subjects perceive themselves as to sports information?

(f) What attitude did the subjects hold towards the commercial spectator-sports?

5. To What Degree did the Subjects Perceive Themselves as Being Vigorously Active?--

6. How did the Subjects Perceive Their Own Physical Health?--

7. What Influence did Facilities and Equipment Have on the Degree of Involvement in Sport and Physical Activity?--

Research Hypotheses

This investigation will proceed to test the following hypotheses:

1. Adult men who are persistently active in sport and physical activity will differ in their childhood sport and physical activity environment from adults who are not active.

2. Adult men who are persistently active in sport and physical activity are motivated by strong incentives to participate and have a strongly positive set towards their particular sport or physical activity. This is manifested in:

   (a) Long-term consistent involvement in the activity.

   (b) Friendships or acquaintance relationships growing out of the activity.

   (c) Existence of a reward system which reinforces participation.

(d) Expressions of enthusiasm for the activity and its setting.

(e) A high position in the hierarchy of life activities being assigned to sport and physical activity.

3. Adult men who are persistent non-participants in physical activity show states of low motivation and a negative psychological set towards sport and physical activities generally.

This is manifested in:

(a) Non-involvement in sport and physical activity.

(b) Histories of low satisfaction or frustration resulting from exposure to sport and physical activity.

(c) A low position in the hierarchy of life activities being assigned to sport and physical activity.

(d) Expressions of negativeness towards their own participation in sport and physical activity.

4. Adult men who are persistently active in sport and physical activity will differ in the perception of their own health from adults who are non-active.

5. Adult men who are persistently active in sport and physical activity will differ in the perception of their level of activity in the daily round of life activities.

6. Adult men who are persistently active in sport and physical activity will differ in secondary participation in sport from adults who are non-active.

Definition of Terms

Regular Participation.--is the act of personal involvement as a player in a game or physical activity, as a steady repetitive sequence of events carried on through a long period of time.

Physical Activity.--is defined as large muscle motor activity involving the body in initiating its own movements to the degree that the physiological changes associated with the training effect occur within the subject.

Sports.--are physical activities with rules performed singly or in groups, the object of which is the intrinsic values of health, physical fitness and personal satisfaction.

A Participant.--is defined as one who is regularly involved in sport and physical activity and has maintained this level of involvement for at least three years or seasons.

A Non-Participant.--is defined as one who has not regularly participated in a sport or physical activity for at least five years.

Secondary Sports Participation.--Involvement in sports activities while removed from the immediate scene of the action by means of motion pictures, television, the news media or interpersonal contact.

Limitations and Delimitations

1. This study is limited as follows:
   (a) By the reliability of the interviewing technique.

(b) By the bias within the interview rating process.

(c) By the procedure used to select the sample populations.

(d) By the veracity of the responses to the interviews and questionnaires by the subjects.

2. This subject is delimited by the criteria by which sample selection was made as follows:

(a) Male.

(b) Age twenty-five and older.

(c) Middle and upper middle class socio-economic status.

(d) Canadian cultural background.

(e) Subjects living in Edmonton, Alberta from the Fall of 1972 to the Spring of 1973.

3. This study is exploratory in character, designed to provide indications of the qualities thought to underlie participation or avoidance of it. Within the constraints of the process used to select the subjects it is hoped to find a suggestion of the directions that future work in this area may take.

CHAPTER II

REVIEW OF THE LITERATURE

A Conceptual Framework Within Which to Consider Sports and Physical Activity Participation

This study is concerned with the physical activity of adults and the factors involved in the activity choices they make. The term physical activity is a convenient categorization of an aspect of life in which some adults are heavily involved and many others eschew entirely. No unique set of rules are claimed to govern its influence on the human state, for physical activity involving human beings is simply a form of human activity. It can therefore be considered in the light of a general theoretical concept of human behavior.

Birch and Veroff (1966:5) suggest that goal-directed (instrumental) behavior is grounded on four source effects. These have been called availability, expectancy, incentive and motive. They will be considered in turn here with examples suggesting their relationship to participation in sports and physical activity.

Availability.--(Birch and Veroff (1966:6)

This is the degree to which a situation makes possible various courses of action. Aspects of the past history and of the present situation contribute to the range of availabilities in a given situation. The possibility of vigorous physical activity participation is contingent on the range of socially learned responses available to the individual plus the opportunities existing within the situation. As an example, if the individual has learned that vigorous physical activity is inappropriate behavior for adults, physical activity will never become a response available to him. The availability of facilities, the convenience of participation, the economic resources of the individual are situational variables which influence the selection of available behavior. The habit of physical activity participation is learned through earlier experiences which have rewarded and reinforced the behavior. Failure to learn these responses results from weak or intermittent reinforcement. Smith and Moore (1966) describe this situation by suggesting that:

> Many behavioral repertoires are weak because of an accidental history which supplied an inadequate reinforcement at an early stage....An optimal schedule of reinforcement of a repertoire is essential...if a strong disposition to engage in the performance is to be maintained...(p. 151)

Expectancy.--

The goal-directedness of behavior is based on expectancy (Birch and Veroff, 1966:7). It is a function of the

anticipation of the end-goal. Realization of the end-goal reinforces behavior and so heightens the expectancy of future satisfaction. Expectancy is largely determined by previous experience. MacIver (1942) discussing how individuals define a situation states:

> The situation (the individual) assesses is one he has selectively defined in terms of his experience (and) his habit of response. (p. 292)

If an end-goal has consistently followed from a particular action, the expectancy of that end-goal being associated with the given behavior will be high and vice-versa. For example an individual who has consistently had unpleasant experiences with water, swimming pools, lakes, etc. is unlikely to retain a favorable disposition to swimming. In this case the expectancy of unpleasant consequences from exposure to the aquatic situation is high and results in avoidance reactions (Whiting, 1970). Other similar examples abound in the field practice of Physical Education.

Expectancy can occur as a direct result of stimulation which highlights the immediate perception of the activity. Notable examples are seen in advertisements for dancing instruction, the body beautiful or for the Judo-Karate cult. In each case the expectancy of success is assured with the most attractive outcomes.

Incentive.--

The results of a particular action will have a special value to an individual. This is its incentive value.

Incentive is vested in the results of the action. If a result is perceived as favorable or attractive, then it is said to have a positive incentive. The reverse is also true. The strength of a goal-directed tendency to an individual is determined by its incentive value for him. If, for example, the individual sees in a particular activity a source of friendship or a means to recapture his youthful vitality, this positive incentive can cause him to actively pursue the activity and its goal outcomes. Stiles' (1967) case study of nine middle-aged skiers provides a number of examples of goal-directed activity where the goal was health and fitness and where skiing held a high incentive value for the subjects.

Motive.--

These are modifiers of incentive. A motive is an attraction for a general class of goal outcomes. For example, an individual may find a positive incentive in the release of nervous tension from playing volleyball. He may also be motivated to be involved in that and similar games due to their general outcome of physical fitness.

Behavior is the function of the individual motives which are, in turn, a function of his attitudes, interests and values (Albinson, 1971). These are socially acquired and are the product of the reinforcement contingencies present in the individual's environment.

Consummatory Behavior.--

Birch and Veroff's (1966:9) treatment of consummatory behavior is a particularly appealing conceptual framework for this study. Consummatory behavior is non-directed and affective in nature. The activity is, in effect, its own end or goal. The tendency to pursue consummatory activity declines with its performance. Eating is a typical example. They note that some activities are pursued for the satisfaction of the performance. Applying this to participation in sport and physical activity, it is easy to cite numerous examples of activities and situations pursued for their own pure enjoyment. These run their course in a manner described by the consummatory behavior model. Typical would be enjoyment of solitary running or playing a game without reference to the score or outcome.

Birch and Veroff (1966:41) describe seven incentive systems which are used to explain instrumental and consummatory behavior. These are the: Sensory, Achievement, Affiliative, Aggressive, Power, Independence and Curiosity incentive systems. The first four of this list have especial relevance to the consideration of adult participation in sport and physical activity and will be considered in more detail later in this review.

Previous Experience as an Influence on Participation

Certain areas of experience seem more likely to produce attitudes to sport and physical activity than others.

Thus this review of literature is confined to an examination of the family as an agent of sport socialization; the education system and its influence on attitude and individual differences in activity level as predispositions to sport and physical activity involvement.

The Family as a Socializing Agent to Sport and Physical Activity

During childhood the parents are the primary agents of socialization. Children take the attitudes of and copy the behavior of those persons in their lives on whom they depend and who exert control over them (Mead, 1934). Thus it is the parents who exert the primary influence on children and play an early role in socialization (Williamson, 1966). Children learn behavior and attitudes from their parents by imitation. They identify with the appropriate adult, and from that parent they learn who they are, what they are and behaviors appropriate for their role and social class (McNeil, 1969).

Children learn from the example provided by those around them. Reinforcement of appropriate behavior during early childhood is important since the primary direction towards experiences is an early occurring process. Pressy and Kuhlen (1957:427) state:

> Attitudes are readily communicable and apparently much more so through indirect...than direct stimulation. If persons about the child are interested and enjoy activities, the child readily falls into the pattern, whereas if persons are half hearted, listless, uninterested...the likelihood of interest on the part of the child is much lessened.

Rarick and McKee (1949) found that young children rated high in motor proficiency had parents who were active in sports while among children rated low in motor proficiency the incidence of parental participation was low by a factor of about one third. They also reported that eighty per cent of parents of children rated high in motor proficiency played regularly with them while the example of parent-child play was absent from among the children rated low in motor proficiency. Behrman (1967) reported that children who were non-swimmers more frequently had parents who were non-swimmers than did children who were swimmers. This occurred on a ratio of about two to one.

Parental attitudes and behavior appear to be the primary influence on the child's participation pattern. Orlick (1972:114) noted that children who did not participate in sport and physical activity came from families that rated these activities low in importance and where the parents were not themselves physically active. Sofranko and Nolan (1972) reported that adult participation in hunting and fishing was influenced largely by frequency of participation during youth. Further, they noted the importance of parental introduction to these outdoor sports during childhood.

A consensus of these studies seem to indicate that physically active children have parents who are also physically active or these children receive encouragement from the adults or significant people in their lives.

Socialization in the Schools

The literature concerning attitude to physical education is extensive. Most of the studies deal with programs at the college or secondary level. They will not be reviewed in detail here. Squires (1956), Cross (1954), George (1958), Casaday (1959), Sluiter (1959), Keogh (1963), Semotiuk (1967), Kenyon (1970) and Wilson (1972), with some qualitative variation all reported generally positive attitudes to physical education in their study populations.

While school sports and physical education programs present only a partial picture of the options open to the young person, they are indicative of the basis of attitude formation. Since these programs are compulsory they can be assumed to include individuals of many shades of experience and attitude. Those individuals involved outside the school are generally voluntary participants who can be assumed to retain a positive orientation to sport and physical activity. The effects of their participation both in school and in extra-school programs should only serve to accentuate the development or retention of positive attitudes.

The school plays a major role in the development of attitudes to physical activity. For those in an urban centre with well developed programs the opportunities for involvement are usually extensive. The young person from a rural community is often denied the well equipped highly organized programs seen in the city. Nevertheless they often find their way into less formal but equally rewarding sets of activities which are indigenous to the locale and reflective of cultural influences.

Determinants of Attitude to Physical Education

Previous Experience

Bell and Walters (1953) reported that women students at the University of Michigan who had previous experience with physical education in high school demonstrated more favorable attitudes to physical activity than those who had no previous experience. Cross (1954) used the Wesr Inventory (form A) to study the attitudes towards physical education of male students at the University of Oregon. He noted that those with a more extensive experience with physical education had more positive attitudes to physical activity than those with less previous experience. George (1958) surveyed the attitudes towards physical education and recreational activities of male students at the University of Oregon. He reported that previous experience was influential in the formation of attitudes to physical education. Also significant in attitude formation he found, were other recreational and work experiences. Kenyon (1970) made a general observation from his study of the attitudes of high school students of four English-speaking national groups. He observed that the individual's attitude to physical activity is directly related to the degree of involvement in the activity to which the attitude is expressed.

Skill Level and Success

That high skill proficiency results in higher levels of success than low skill proficiency is self-evident to anyone experienced in coaching athletes. The literature underlines this observation. Mista (1968) studied 127 first

year women university students using the Plummer attitude inventory. She found that subjects who had won a letter as a high school athlete had more favorable attitudes to physical activity than those who had not won a letter; that those who participated in physical activity outside of school had a more favorable attitude than those who did not participate outside of school, and that those whose self-rating of their ability was high had a more favorable attitude to physical activity than those whose self-rating was lower. Squires (1956) noted a significantly more favorable attitude to physical activity among school representative athletes than amongst the general male student body of a Massachusetts high school. Brumbach (1965) and Cross (1964) noted that athletes demonstrated more favorable attitudes towards physical education than did non-athletes. Kappes (1954), developing an attitude inventory for women's participation in physical education noted a high correlation ($r = .86$) between expressed enjoyment of activities and self-rated estimates of skill at those activities. Turning this around it should be logical to expect that those with a high skill level would experience a high enjoyment of the activity with a resultant positive attitudinal disposition. Neal, Sonstroem and Metz (1964) reported that adolescent boys with a high physical fitness rating conceived of themselves as being more capable at physical activities and more attracted to them than did boys of a low physical fitness rating.

Success in Sport and Physical Activity as an Influence on Levels of Aspiration

It has been shown that persons experiencing success in sport and physical activity or who perceived themselves as skillful at them retained positive attitudes to those activities whereas those who had a low skill level or a lack of success tended to have more negative attitudes. The great importance of success and failure as a motivating force is recognized by practically all schools of psychology. Lewin (1936) cites Thorndike's law of effect as having a great relation to the problem of success and failure (viz.)

> One learns quickly those reactions which are accompanied or followed by a satisfying state of affairs; one does not learn quickly those which result in an annoying state of affairs or (he) learns not to make such reactions. (p. 929)

The effect of this on participation in sport and physical activity is far-reaching. Since those who experience continued low success or failure tend to withdraw and to avoid further involvement. Success is relative. Lewin points out that it is not possible to correlate objective achievement with feelings of success or failure. These seem to be relative to the situation. There are a number of studies with respect to levels of aspiration. Clarke and Clarke (1961) reported that nine-year old boys who verbalized higher levels of aspiration were superior in strength and size to boys who did not either raise or lower their aspiration level in performance of motor tasks. They concluded that under conditions of success or failure, individuals exhibiting superior ability in motor skills and

strength tended to express higher levels of aspiration than those of low ability.

Rutledge (1954) utilized a motor task on a balance beam to compare levels of aspiration between deaf and normal children. He reported that the deaf children had significantly lower levels of aspiration.

Smith (1949) conducted research with fifty-nine members of a university football squad. The study was designed to use player-estimate of time played in each game of a five-game season as a measure of aspiration level. The study produced the following conclusions:

1. Successful players have a tendency to raise their level of aspiration somewhat beyond their level of success while unsuccessful players display the opposite tendency.
2. Individuals who have extremely low levels of aspiration after failure tend to escape from the failure-producing situation (Thorndike's Law).

Schiltz and Levitt (1968) studied the stated levels of aspiration of skilled and unskilled boys under prearranged conditions of failure. The subjects were selected on the basis of performance on the Iowa Brace test. Motor tasks involving the transfer and re-arrangement of small blocks within a time limit was used to measure levels of aspiration. Failure was induced by manipulating the time allowed for the performance. They observed that levels of aspiration differed between the two groups after three trials.

Their results differed from Smith's in that they found no difference in relative aspiration levels between the two groups after continued failure, i.e., the more skilled were still higher than the less skilled so the relationship between the two groups was stable. In any case there appears to be a relationship between skilled and unskilled, between success and failure, and between physical size and strength.

Lewin (1944) theorized that the process of setting goals was probably one stable personality characteristic. From Lewin's findings it has been inferred that levels of aspiration as a representation of goal-setting behavior was an inherent part of an individual's self-concept which is based on past experience and performance.

Personality and Participation

A consideration of the reasons that people elect to participate in sport and physical activity would not be complete without a review of personality factors of various active and inactive groups. It can be argued that activities alter the personality of individual participants. This is suggested by Blanchard (1946) who reported a two-year study of 132 High School boys and girls enrolled in a compulsory physical education program. The subjects were rated by their peers and teachers on a scale for the measurement of character and personality in physical education. The results showed a continuous growth in desirable character and personality traits taking place with each grade level. The girls' improvement exceeded the boys' improvement at each

level. It is noted with interest that Blanchard is quite specific as to the domain of the improvement which he carefully located within the physical education situation. He is not prepared to claim that these good effects have been generalized on to other areas of life. Other factors could account for the improved ratings. The mere process of group solidarity developed over two year's continuous association is enough to influence the ratings of both students and teachers. In the face of other studies, Blanchard's report appears to be optimistic. As a contrast to this, the study of Milverton (1943) shows an opposite result. He compared personality traits of two groups of twenty boys, one group who participated in a regular physical training program, and the other who did not. He found no significant differences at the end of a twelve week period. Relatively speaking, this is a short experimental period.

Tilman (1965) administered the Cattell Sixteen Personality Factor (16 PFI) Questionnaire to two groups of teen-age boys who were selected on the basis of physical fitness. The groups were comprised of the top and bottom fifteen per cent of a high school physical education class. After a nine month physical fitness program the groups were retested with the Cattell 16 PFI. He notes that the experimental group differed in only one of twenty-eight personality trait measures although both groups made significant improvements in physical fitness.

Werner (1966) administered the Cattel 16 PFI to military cadets prior to and following a four-year training program which included compulsory participation in sports generally and in a varsity team sport in particular. He did not discover a change in personality in a group of former high school non-athletes over a group of former high school athletes. He suggests that the activities do not change the personality of individuals but that individuals with a particular personality elect to participate in certain activities. Hardy (1935) suggests that the nature of the adult leadership rather than the activities themselves is the significant factor in character education. Layman (1960:574) states:

> In evaluating the effects of physical education and sports on adjustment, most of the studies are such as to make it difficult to separate the effects of skill from those of participation since the more skilled individual is more likely to continue participating than the less skilled individual who tends to become discouraged and drop out.

This leaves the theories and research findings at the point of suggesting that individuals select activities on the basis of their needs and personalities rather than being very much moulded by their participation. The adjustment of individuals to life dictates what activities they will pursue and those they will avoid. Previous experience is the conditioning agent which pre-disposes an individual to act. The form and substance of the act of participating is mediated by the personality of the participant.

Personality as a Factor Influencing Participation

The literature on personality related to participation in sport and physical activity indicates that significant differences exist between those who are active and those who are non-active. Jones (1946) pointed out on the basis of correlational evidence, that adolescent boys found their chief source of social esteem in competitive athletic skills. He stated that this was attributable not only to the high value placed on sports participation by this age group, but also to the fact that other aspects of physical ability were closely associated with such traits as aggressiveness and leadership. Jones found that boys scoring high in strength had a good physique, were well adjusted and had high social prestige. The boys scoring low in strength were late maturing, aesthenic, had generally poorer health, social difficulties characterized by lack of status, feelings of inferiority and personal maladjustment. Booth (1958) studied two groups of college men selected on the basis of athletic participation using the Minnesota Multiphasic Personality Inventory (MMPI). He found, among other things, that the athletes were significantly lower in anxiety than the non-athletes.

Biddulph (1954) compared adjustment of fifty high school boys of high athletic achievement with fifty boys of low achievement. They were evaluated on the basis of teacher's rating, a socio-metric measure and the California Test of

Personality (CTP). It was found that the group with superior athletic achievement scored higher on the CTP, they were also considerably higher in the rating of the teachers. Biddulph concludes by stating:

> The results clearly indicate that the group ranking high in athletic achievement demonstrated a significantly greater degree of personal and social adjustment than did the group ranking low in athletic achievement. (p. 7)

Slusher (1964) studied high school athletes with individuals from the same school population using the MMPI. He noted that non-athletes scored higher in the Mf scale (femininity) than did the athletes. He noted that the non-athletes along with wrestlers scored highest on the Pt scale (psychasthenia). This is a measure of a tendency towards abnormal fear, worry and difficulty in concentration. Tillman (1965) tested 386 boys and girls for physical fitness. The boys who scored in the upper and lower fifteen per cent of the group were further tested with a battery of three personality tests. He reported that the high fitness group were more extroverted than the low fitness group. The upper group revealed more personality traits that were socially oriented than were the low group. They were found to be more interested in people and group inter-action. The low fitness group appeared to be tense and to have more introverted personalities.

Whiting and Stenbridge (1965) using the Maudsly Personality Inventory found highly significant differences between the extroversion means of swimmers and persistent

non-swimmers. He found the non-swimmers scored significantly higher in neuroticism. This is corroborated by a study by Brunner (1966). He studied personality differences between swimmers and non-swimmers as manifested by scores on the Guilford Zimmerman Temperament Survey. He reported that the differences in scores between the groups suggested that non-swimmers were more shy and seclusive than the swimmers who were sociable and outgoing. Interviews with a group of non-swimmers who had failed a course of instruction disclosed that many of the failing group had patterns of behavior indicating depressive tendencies. The interviews underlined in the non-swimmer group symptoms of unstable behavior and poor mental health. He noted further that non-swimmers tended to be hyper-sensitive and self-centered.

Werner (1960) utilized the Cattel 16 PFI to study cadets at the U.S. Military Academy. He found that the athletes were significantly more sociable, dominant, enthusiastic, adventurous, tough-minded than those cadets who had never been active in sport and physical activity. Howell, Anderson and Culutson (1965) studied the top and bottom fifty men of 2000 freshmen male and females scoring on a motor ability test at the University of Alberta. These two groups were tested with the Omnibus Personality Inventory. The fifty men scoring high on the motor ability test were found to be more ready to express their impulses and seek gratification in conscious thought and overt action. They were as mature

as senior class men and showed a greater preference for overt action and seemed to be more extroverted. On the basis of the test they were thought to be less cautious, prudent and inhibited than the low performing group.

The studies cited thus far have corroborated a major study by Nelson (1948) which has been left last in this sequence of reviewing because it so aptly displays the characteristics of the non-participant in sport and physical activity.

Nelson was concerned with the differences which existed between high school boys who elected to take military training which included foot and rifle drill in a very regimented circumstance instead of the regular sports and physical education program offered in the high school. He selected a matched sample of boys in military training and boys from the ongoing physical education program. A test specifically designed to disclose the relevant areas of attitude was administered to both groups. From the results of the test a striking profile of the young high school boy who elected to take military training instead of physical education emerged.

The non-participant in physical education has a comparative dislike for physical activity and competition. He prefers intellectual amusements to athletic games. He regards uniformed group membership as desirable and derives considerable satisfaction and moral support from his membership. The participant in military exercises is less socially

apt than other boys of his age. He tends to keep in the background at social affairs and would not make an effort to meet the guest of honour at a reception. He is less inclined to go to parties or dances or to affairs where there is a lot of boisterous activity. He prefers to work alone than in the company of others; he is shy and does not date girls very often. He is not well liked by those who know him. He tends to feel cut off from people and lost in a crowd. He feels very different from those around him.

Activation Level as a Determinant of Participation

It is a matter of general observation that people vary in their level of activity.

Various activity patterns seem to be common to certain types of physique. This has been widely reported and discussed in the literature. Willgoose (1956) noted various activities which are more characteristic of certain body types than of others. Sills and Mitchem (1957) presented a method of categorizing body type as to performance on physical fitness tests. They noted that the level of activity characteristic of an individual is somewhat a function of his physique.

Biological factors seem also to effect the individual's level of activity. Thomas, Chess and Birch (1970) after a ten-year study of infancy to middle childhood concluded that distinct levels of activity appear in the neonate

which are characteristic of that individual and are apparently independent of the handling style of their parents. They note that these original characteristics seem to persist into childhood and remain constant. Thus those who tend to activity and restlessness continue so while those who are quiet tend to continue that way.

Following from this, Fiske and Maddi's (1968) theory of activation can help to explain the differences in individual levels of activity. They suggest that an individual seeks to maintain an optimal level of activation which has resulted from biological factors and early conditioning. If activation falls below that which the individual finds ideal, he tends to indulge in behaviors which increase the impact and amount of environmental stimulation. Conversely when activation from the environment increases above the desirable optimum, the individual seeks to restore this optimum with appropriate withdrawal or screening behaviors. According to this theory, biological and environmental factors play a significant role in determining if an individual will pursue an active life style or if he will follow a quiet introspective way of life.

It would seem from the foregoing that people who find their way into physical activities and continue to participate display markedly different characteristics from those who never start or after starting drop out. It may well be that

the factors involved in avoidance or withdrawal from sport and physical activity participation are as much biologically determined as they are social or psychological.

Incentives for Adult Participation in Sport and Physical Activity

Very little work is reported in the literature that deals with participation by the mature adult in sport and physical activity. There is now a substantial body of literature which deals with training and conditioning of older men, but there are very few articles which deal with the why rather than the how of their participation. Middle-aged men are only just now coming under the eye of the researcher. The following articles represent the available literature on this subject. This discussion will attempt to present the findings of these studies and to relate them to a conceptual framework of motivation.

In a case study of middle-age skiers Stiles (1967) reported interviews with nine persistently active subjects. He noted that at least two sets of motives were involved in sports participation: the initial motives which resulted in their involvement at the outset and the motives to continue their involvement. He further noted a considerable variation in the initial motives, but reported that the motives to continue were much more uniform. Harris (1968) studied middle-aged male employees of a university as to

background experiences and attitudes to physical activity. Her study group was divided into three sub-groups on the basis of their participation history. One group was sedentary, a second group was newly active in sport and physical activity (for one year) and the third group was highly active. Harris did not investigate initial motives for involvement in sport and physical activity. She noted, however, that sedentary men differ significantly in their replies to questions about their involvement in sport and physical activity from active men. Further, the newly active men, (i.e., those who had participated for a year) but had previously been sedentary, were very similar in their replies about their involvement to the men with lifelong active involvement histories. A marked change in attitude such as this would suggest that a socializing process was ongoing during their period of first involvement.

Family Background

Stiles reported that all his subjects had a family history or a personal background in sports participation. Harris reported that without exception the active men in her study had always participated in vigorous sports whereas one-fourth of the sedentary group had never been sports participants. She further noted that seventy per cent of the active group had parents who encouraged their sports participation while only forty per cent of the sedentary group had been encouraged by their parents. This literature would

seem to support a hypothesis of difference in background between physically active and non-active men.

Conservance Incentive

Subjects in both studies indicated continuing concern with the state of their body. Part of the incentive leading to their participation was fear of incapacity or increasing decreptitude. The investigator has utilized Murray's (1938) scheme of need systems to categorize this need complex. In Murray's nomenclature the term n conservance denotes a need to protect against damage, to collect, repair, clean and preserve things (sic). When applied to the behavior of middle-aged men in relationship to the state of their bodies, the term conservance has a logical appeal. While Murray relates this need system specifically to inanimate objects, the behavior related to this need of preservation and repair, can be accurately applied to the domain of health and physical fitness. In reference to the need to conserve the body, Harris' subjects gave replies to five statements indicating this concern. Typical of these is, "I play because I think I will be healthier for doing it." Eighty-nine per cent of the active subjects agreed with this statement. It is noted with interest that 73.7 per cent of the sedentary subjects also gave agreement. Stiles reported that all of his subjects continued in sports through a desire for the feelings of well-being that resulted.

> Accompanying this was a general belief in the adage 'People don't wear out, they rust out', and the conviction that physical activity promoted buoyant health. (Stiles, 1967:890)

Achievement Incentive

The achievement incentive has been described by Murray (1938:164) as follows:

> ...to make...prolonged and repeated efforts to accomplish something difficult. To work with a singleness of purpose....To have the determination to win. To try to do everything well. To be stimulated to excel by the presence of others, to enjoy competition. To exert will power;...

Birch and Veroff (1966:57) define the Achievement incentive as a goal-directed system. Activity is centred on successful competition with standards of excellence which are defined by the individual. The perception of achievement is related to levels of aspiration which are in turn derived from previous performance or from cognitive appraisal of the situation. Certain absolute standards exist in most realms of human activity but most individuals function without much reference to them. They derive their own standards of performance. These are related to the individual's need to achieve which in turn mediates the setting of aspiration levels. The individual perceives his success and derives his satisfaction in accordance with the degree to which his performance approximates that to which he aspired. Standards of achievement are derived by the individual out of his previous performance or from special

knowledge of his environment. Knowledge of success without external recognition is satisfactory for many individuals and relate to feelings of efficacy and competence. Thus achievement and competence are sometimes intrinsically experienced and are related.

Subjects in both studies gave evidence of pleasure and pride in their achievement. A high percentage of the active subjects in Harris' study indicated a strong competitive drive through agreement with statements such as, "When I play I want to win." Stiles reported that his subjects were challenged by the new techniques being learned and rewarded by the thrill of their mastery. He also noted that the desire to excel and a strong competitive drive was present in most of his subjects.

Stiles (1967:891) raises an interesting point in his reference to the competitive drive. Competition was not always overt or inter-personal amongst his subjects. A number of subjects reported that the competitive drive was expressed relative to their own previous performance, i.e., the subject internalized his competition in terms of his own goals and of his own capabilities. Satisfaction then became a matter of realistic goal-setting.

Harris' subjects give similar indications through their replies to statements such as: "I play because I want to prove to myself that I am still capable of meeting the demands of play." (Harris, 1969:422)

Competence Incentive

A number of authors have considered the phenomena of apparently unrewarded performances both in animals and humans. Nissen (1954) suggests that in rats, certain goal-striving behaviors may be not only instrumental but goal-directed in themselves. He agrees that each act in a long sequence of goal-seeking acts may have an intrinsic motivation. He describes various activities of rats which are performed at some discomfort and without reward. He suggests that these are done for the satisfaction intrinsic in the performance.

Hendrick (1943:561) writes of "an inborn drive to do and to learn how to do." He describes the individual experiencing pleasure in exercising a function successfully. Murphy (1958) speaks of a satisfaction of using what we have--in using the equipment that makes us human.

> It is highly probable that sensory gratifications including...motor gratifications...,sports and progressive refinement of motor skills will all grow...more complex and make up a larger...part of life. (p. 34)

The feelings of satisfaction with a performance of a physical skill without an external criteria of success may be based on the perception of the activity as somehow instrumental to certain ends. It has been noted in the two studies under review that the subjects were strongly oriented to competition as instrumental to a need for self-expression, and a need for conserving their body. It is suggested that

physical performance may also have a consummatory aspect in which the very act of performance is in itself rewarding. This follows from a concept of White (1961). He speaks of competence motivation resulting in behavior which "is directed, selective and persistent and is continued not because it serves primary drives but because it satisfies an intrinsic need to deal with the environment." White notes that competence motivation does not overcome the strong physiological needs, but is a need to "deal with the environment under conditions in which intense pain, hunger or fear are absent."

A study by Koocher (1971) provides support for White's theory. In evaluating self-esteem of boys in a camp swimming instruction program, he reported significant increases in self-esteem after successful completion of a swimming instruction course. He concluded that,

> the development of competence in an area that had previously been marked by failure or avoidance, results...in enhancement of the self-concept. (p. 278)

This represents some behavioral support for White's theoretical approach to the study of self-concept which emphasizes the effect of gaining competence or the "experience of efficacy" in building self-esteem.

Examples of performance of, or attempts to learn, physical skills for no reward other than the intrinsic satisfaction in the performance are seen in both studies under review. Stiles' subjects speak of the challenge and

thrill of mastering a difficult technique. Over eighty per cent of Harris' two active groups gave agreement to the statement "Each time I play, I am reassured of my capacity to face physically demanding situations." To the statement: "I often do something demanding strength and endurance just to prove I can still do it," 67.2 per cent of the active group and 51.7 per cent of the recently active group gave agreement. (Harris, 1968:422) In both cases is seen the intrinsic value of the performance for itself alone or as an indicator of capability.

Affiliation Incentive

Birch and Veroff's (1966) discussion of the Affiliation Incentive provides one useful conceptualization by which adult participation in sport and physical activity may be considered. They suggest that affiliation is the attraction of another individual in order to feel reassured from the other that one's self is acceptable. They note, too, that this motive is particularly potent when an individual is emotionally upset especially about his own self-evaluation. Affiliation has a number of functions for the individual.

Schacter (1959) divides affiliation needs into two categories, those not requiring people as such, for their fulfillment, and the needs for approval, support, friendship, prestige, etc. in which people as individuals are needed. Festinger (1954:164) proposes that there is within

the human organism a drive to evaluate his abilities, opinions and emotions; that human beings want accurate appraisals of their abilities; and that in the absence of objective standards they will seek out and compare themselves with others similar to themselves. Festinger calls this evaluation by social comparison.

Work by Schacter (1959) Gerard and Robbie (1961), Singer and Shockley (1965) support the early theory of Festinger. In summary they state that people affiliate with others similar to themselves when they are uncertain about the appropriateness of their emotional reactions, opinions or the level of their abilities.

Stiles (1967:890) describes an over-riding motive for participation in sport and physical activity which is supported by Harris' (1968:422) findings. Stiles lists "the congenial companionship of like-minded individuals" as an important outcome of participation by his subjects. He notes the use of terms such as "19th hole" and "apres-ski" as indicative of the importance placed on the social interaction around sport. Thus for many individuals sports participation has more functions than just a means to physical fitness. As Stiles observed, the enjoyment of congenial companionship may be keener within the activity setting than in the pre- or post-participation experiences. In any case, the human inter-action as part of the sports experience is an important aspect of participation for many of the subjects in both studies.

Harris' (1968:422) subjects indicate affiliation incentives in replies to the statement: "I participate in sports and games because I want to participate with others who do." Agreement with this statement was reported in 88.2 per cent of her active subjects and in 68.1 per cent of her recently active subjects. In considering the nature of the overt competitive situation the affiliation need is implied each time a subject indicates that inter-personal competition is satisfying to him for it is impossible to enter directly into competition without an opponent with whom to compete. Thus competition almost always implies affiliation even in the competence motivated individual who still, from time-to-time, requires an external reference by which to evaluate his own performance.

Birch and Veroff (1966) suggested that the principle function of the affiliative incentive is to enhance the self. In terms of earlier work reviewed here, this has a nice logic since the physically active individual has also been shown to be more out-going and more well-adjusted. He also has more social contact and more meaningful relationships with those he encounters. Thus those capable of a wide range of affiliations are those who are able to utilize the advantages which accrue. Those less apt at social interaction are also those less well adjusted and less physically active.

Other Incentives

A number of other motives appear in Stiles' population. Notable was the release or escape provided by the skiing environment. He noted "the escape from crowds and the customary anxiety and problems (of life)" as an important theme among the incentives of his subjects.

Harris reported that release of aggressive tensions was a significant factor in 48.3 per cent of her very active subjects and in 33.3 per cent of her recently active (one year) subjects as they gave affirmative replies to the statement: "For me, sports serves as a major outlet for aggression."

Stiles noted among the incentives for continuance in the sport "certain cosmetic values", as his subjects drew attention to the trim, tanned, healthy-appearing athlete which they contrasted to the flabby, palid, sedentary individual. Moreover, a certain awareness of the sex-appeal of the sport is high-lighted by the comment

> unquestionably, sports' clothing, particularly the articles designed for the female...enhances attractiveness. (Stiles, 1967:890)

Notable among the list of incentives to continue participation which were produced by Stiles were:

(a) Maintenance of health and youthful vigour. (Author's Italics)

(b) Attainment of a desirable self-image.

While these two incentives have been considered in

part already they are especially significant for the middle-aged man.

Problems at Middle-Age

Middle-age marks a particularly crucial point in the life of most men. Its exact onset varies markedly from individual to individual. Pressy and Kuhlen (1957) discuss the process in detail noting a number of significant changes and limitations which occur between thirty-five and forty-five years of age.

During these years the individual is confronted by a number of physical and circumstantial changes which play a role in his orientation to life. Notable is a decrease in physical vigour and an increase in hypokinetic disease (Raab and Krause, 1961). Schwarz (1968) reports that in the general male population of Great Britain twenty per cent have some vague symptom of illness or headache, thirteen per cent suffer from vague muscular and joint disorder, ten per cent suffer from acute upper respiratory infection while an equal number suffer from undefined gastric problems. He notes also that five per cent suffer from psychoneurotic disorders. He suggests that moderate exercise needs to be broached to all middle-aged men due, he says, to the tendency to abandon sports participation which increases with age. He further suggests that improved mental health is an urgent concern in these years; that psychological ill-health

brought on by problems of adjustment to middle-age constitutes a great threat to men both socially and economically. He names a number of particularly prevalent problems for the middle-aged man.

(a) Waning of sexual attractiveness and potency.

(b) Break-up of the home through children leaving.

(c) Loss of capacity at job or a job redundancy.

Loss of physical capacity is often manifested by a slowing of the reflexes, a diminution of physical energy and a discovery that his capacity for physical activity is not what it used to be. Buhler (1951) noted that in the middle years there is apt to occur a period of evaluation when life progress is assessed with reference to achievement of earlier goals and motives. It is a period of coming to terms with the successes and failures and a growing awareness of the finiteness of life. During the middle-years anxiety increases. There is a growing concern with health, marital problems and the relinquishing of important hopes and ambitions. Pressy and Kuhlen (1957:149) report that the incidence of mental illness increases after age thirty. For many men this period marks the point in their lives at which they changed direction from the broadening of horizons, of enterprize, to the holding and conservation of gains already made. Buhler (1951:187) suggests that:

> One of the basic motivations of life springs from the maturation process. The need for expansion of life through marriage, family, occupation and recreational interest is the underlying motivation.

> Again, these activities differ in each individual as he perceives his life goals. As the productive energies are exhausted, so the individual enters a period of preservation in which he tries to protect his gains and avoid loss.

The need to preserve and maintain the physical body is seen as a significant motive in terms of Buhler's work. The improvement or enhancement of the self-image through vigorous sports participation is reported by Stiles (1967:890). It is suggested that this is a master motive which underlies the participation of most middle-aged men.

Self-Esteem and Self-Actualization

Cofert and Johnson (1960) discuss the concept of self-actualization as a motivation to participate in sport and physical activity. They cite authors such as Rogers (1951) Goldstein (1939) and Maslow (1954) who have broken with the psychoanalytic tradition and have postulated a concept of man striving for fulfillment or self-actualization. This striving is opposed by anxiety and unsatisfied needs which make the individual conform to his social and cultural millieu. Only by self-expression and the rejection of empty conformity can the individual grow to attain positive psychological health and realize his full potentialities. Maslow (1954) develops a concept of all human needs appearing in a hierarchy of which the more basic needs are prepotent and require satisfaction in a large measure before the higher needs are able to be expressed. The need hierarchy postulated by Maslow is comprised of five systems:

(a) Physiological Needs.
(b) Safety Needs.
(c) Love Needs.
(d) Self-Esteem Needs.
(e) Self-Actualization Needs.

Maslow notes that very few people are totally at the level of self-actualization; that the prepotent needs require substantial, not total, satisfaction before the next need in the hierarchy becomes operant. Thus it can be postulated that individuals striving for self-actualization can be also striving for self-esteem; that some are striving for love and self-esteem and for a measure of self-actualization too.

It is particularly to the point of this discussion that Maslow stresses the absence from his findings of youthful self-actualized persons. He states:

> I had to conclude that self-actualization of the sort I found in my older subjects was not possible in our society for young developing people. (p. 200)

Cofert and Johnson (1960) observe that Maslow's self-actualizing adults may be said to have "arrived" in life as far as achievement of culturally esteemed goals is concerned. Young people are still in the striving phase of life and have not yet solved many of the basic life issues such as marriage and subsistance.

Thus the middle-aged person is conceivably closer to a level of self-actualization for which sport and physical activity participation may be a satisfaction. For those

below the level of self-actualization, the satisfaction of the self-esteem needs may also be met through sport and physical activity participation.

Maslow (1943) writing of the needs for self-esteem states:

> All people in our society have a need...for a... high evaluation of themselves, for self-respect or self-esteem, and for the esteem of others.... These needs may be classified into two subsidiary sets. These are the desire for strength, for achievement, for adequacy, for confidence....(sic). Secondly we have the desire for reputation or prestige, recognition, attention, importance, or appreciation. (p. 381)

In terms of works reviewed earlier in this paper, Maslow's description of the self-esteem and self-actualization needs appears a particularly useful conceptual tool with which to consider the sport and physical activity participation of middle-aged men.

Non-Participation in Sports and Physical Activity

Non-participation in sport and physical activity does not imply an abstenance from all other activity. Indeed, the non-participant may be more involved in life affairs than the regular sport and physical activity participant. The crucial issue in terms of health and physical fitness is the nature of these activities in terms of regularity and intensity.

Baily (1955) studied the recreational habits of four groups of men in the age ranges 20-29, 30-39, 40-49,

50-59. He reported a rapid decline in interest which accompanied increasing age in those activities requiring a quick reaction time, physical stamina, and those satisfying the erotic impulses. Participation frequency declined with age in conversing, night clubbing, weightlifting and calisthenics. It was noted that men of all income groups participated very little in sports during their leisure. However, the sport's participant was found more frequently in the middle income group. Many of Baily's subjects vocalized intent or feelings of obligation to be active which apparently they were unwilling or unable to act upon. Lack of time was the most frequent reason given for non-participation. A greater proportion of his subjects had been dissatisfied with their participation in active sports than had been dissatisfied with their participation in sedentary activities. It is noted in his results that the ten activities most rapidly declining in popularity with increasing age were all vigorously active while those least declining in popularity were quiet or light active.

Havighurst (1959) studied the leisure activities of men and women from forty to seventy years of age. He used a set of nineteen significance variables against which recreational activities of the subjects were rated. These were inter-correlated with four personality variables and nine recreational content variables. His results do not easily compare with those of Baily since he reports them in terms of personality variables. It is worth reporting,

however, that he found that the significance of leisure activity is more closely related to personality than to other variables such as age, sex, or social class. He points out that leisure seems to be an aspect of personality which is a response to personality needs. If this finding is congruent with the studies on personality reported here it is possible to hypothesize that acting outgoing people will seek vigorous activities which facilitate them while the quiet introspective individual will prefer the quiet sedentary pursuits which will serve their needs.

Clark's (1956) study of 514 men relating leisure use to occupational prestige has some application in this discussion. He reports that the middle income group participated more frequently in spectator sports than did either of the high or low income groups. It is noted that when his subjects were asked how they would utilize two hours per day of extra leisure time, none indicated any interest in sport and physical activity participation. This tends to support Baily's finding that vocalized intent or desire is not necessarily substantiated by action.

Typical recreations of the middle-aged male were playing golf, spectator sports, (pro-football), home entertaining, attending parties, (Clark , 1956:304). Baily (1955:5) reports that bait-casting, still fishing, square dancing, puttering and repairing were those activities of least declining popularity among men. Further, he noted

that the recreational habits of younger men do not differ greatly in kind from those of older men. It is significant that none of this list of activities exceeds a light active rating on Passmore and Durnin's (1955) energy cost tables. It can be stated without equivocation that a life style which includes activities no more intensive than those shown by these two authors is unlikely to produce or maintain adequate levels of physical fitness.

Summary

This review of literature has presented a conceptual framework within which to consider sport and physical activity participation of middle-aged men. It has considered family background, school experiences, personality and activity level as influences on sport and physical activity participation. The effects of each of these factors have been related to the existing literature on sport and physical activity participation of middle-aged men. Finally, consideration was given to recreational interest studies of middle-aged men with a view to determining participation habits and attitudes to sport and physical activity involvement.

CHAPTER III

INSTRUMENTATION

Introduction

This is an ex post facto research design. The populations under investigation have been selected on the basis of a dependent variable. The variable, which is participation in sport and physical activity, is hypothesized to have occurred in the subject's behavior as a result of the earlier operation of the independent variables. Whatever they were, the purpose of this investigation is to identify and if possible quantify these independent variables.

A Rationale for the Research Method Utilized

This research study was predicated on a behaviorist view of human activity. This maintains that the primary area of study for the understanding of human behavior is the activity of human beings itself. To understand how an individual perceives the incentives available within a given situation, it is necessary to look closely at his behavior. It is within the behavior of the individual that the workings of the various incentive systems may be observed.

and it is within his past behavioral experiences that the reinforcement contingencies which have resulted in his current behavior patterns may be discovered.

The research strategy of this study was firmly based on this assumption. In the method arising from this assumption, the subjects were presented with a set of verbal stimuli in the form of a fixed schedule of questions. Their responses to these stimuli were the basis of the data collection process. Within the subjects' responses which were largely narrative, it was hoped to find the experiential and attitudinal basis for the criterion behavior.

Selection and Construction of Test Instruments

Essential Criteria - Time and Adaptability

Consideration of the various dimensions which appear to operate to produce participation led to a search of the literature for test instruments. An instrument was required that could be applied in less than sixty minutes. It was required to be specific enough to evaluate the pertinent behavioral dimensions while at the same time flexible enough to be adapted to individuals of widely ranging backgrounds.

It was decided to use an interview technique since this seemed to satisfy many of these requirements. A consideration of the literature on research interviewing led to the selection of the focused interview as the most suit-

able method for the purposes of this investigation.

The Focused Interview

The use of a focused interview to elicit information had a number of practical attractions. Since the subjects came from a widely ranging set of backgrounds a single pro-forma questionnaire would not have adequately assessed each subject. The alternative would have been to form general questions requiring a narrative answer or to construct a voluminous battery of tests. This latter method was discarded at the outset since it would have required long sittings and would have encountered resistance from the subjects.

The focused interview seemed to provide the flexibility needed to elicit information and to verify and cross-check replies. The use of the interview in this setting has the support of a number of researchers. White (1952:93) states:

> Any attempt to study other people must rely heavily on interviews. There can be no adequate substitute for the obvious procedure of asking the subject to tell all that he can about himself and his environment.

Merton (1956:5) states:

> In the focused interview, the interviewer can play (an)...active role; he can introduce more explicit verbal cues to the stimulus situation or even represent it.... ...this ordinarily activates a concrete report...by interviewees.

Kerlinger (1964:467) discusses the interview technique and suggests that emotionally-charged information may be

distorted by the subject in order to maintain a socially-acceptable posture. This reservation must be accepted as a limitation of this study. White's very cogent observation about the veracity of interview subjects is pertinent to this discussion, viz:

> When we ask someone to tell us what he considers to be the characteristic and essential features of his life, we...give him an opening to regale us with falsified pictures...and coloured interpretations. Even when he intends to tell nothing but the truth, we cannot expect him to cancel his unwitting defenses.... Under favorable circumstances, however, this real defect...can be greatly diminished. Much depends on the subject's motives and the relationship he establishes with the (interviewer). (White, 1953:94)

It can be argued that merely to ask an individual why he does what he does and to expect a straight-forward reply is too simplistic a research method. The author is not of this viewpoint, agreeing with Pressy and Kuhlen (1957, p. 262) that:

> Despite...obscurity and complexity many needs are translated into rather specific objectives and goals which are recognized by the individual and observable by others....

They further state that:

> ...in the things that people do <u>because they want to</u> they reveal themselves, their personalities and modes of adjustment, (1957, p. 263)

On these grounds it was decided to question the subjects about their feelings and behavior and to accept their replies as being as close to reality as can be hoped for.

Construction of the Test Instruments

Focused Interview Participant (F.I.P.) (Appendix C)

A review of test literature disclosed that no suitable instrument existed that could be utilized in this study. In order to get at the needed information it was necessary to design instruments that could be used with middle-aged men. Subjects of this age are usually heavily occupied with their own business affairs and so very reluctant to spend a substantial part of a day in seemingly non-productive activity. Speed and brevity were therefore of the essence.

The focused interview for participants (F.I.P.) was designed in five sections. The first (Questions A1-A9) dealt with the individual's childhood sport and physical activity environment (C.S.P.A.E.). The variables questioned in this section were previous experience, attitude, opportunity for participation and school experiences.

The second section (Questions B1-B11) dealt with the activity involvement history of the individual. Questions dealt with the subject's early incentive for involvement, the motive strength in starting a measure of consistency of their involvement, an estimation of the early attractions and the supportive relationships formed.

Section three (Questions C1-C7) dealt with attitudes and incentives in the current involvement. It dealt

especially with subjective feelings about the actual exercise situation.

The fourth section (Questions D1-D5) was concerned with the subject's estimation and description of the general effects of his participation in sport and physical activity on his life.

The last section (Questions E1-E7) had to do with equipment and facilities and their effect on the subject's participation.

Focused Interview Non-Participant (F.I.N.) (Appendix D)

A special problem was involved in the construction of the focused interview for non-participants (F.I.N.). Previous field experience of the investigator has shown that direct questioning of the non-participant concerning his physical activity habits resulted in evasive or defensive answers. Many non-participants give evidence of guilt feelings about their inactivity. As was noted in Bailey's (1955) study there is a discrepancy between vocalized intent and actual participation.

Indeed, the over-riding experience of this investigator on first meeting non-participants socially is a voluntary acknowledgement on their part of their need for exercise. If the matter is pressed the simple acknowledgement quickly becomes truculent defensiveness.

In recognition of this source of bias in the non-participant interview situation, it was decided to use a different strategy rather than the direct question method used with the active participant group. Accordingly, the strategy employed represented the interview as seeking information about the general recreational past-times of the subject. A schedule of thirty-six questions was developed. The first twelve comprised the same C.S.P.A.E. questions which were asked of the participant group. Of the subsequent twenty-four questions, six (P1-P6) dealt directly with their involvement in sport and physical activity. Questions B1-B4 were designed to elicit a narrative account of life circumstances and recreational past-times from the point of leaving high school to the present. One other significant area of questioning was encompassed in questions H1 and H2 which were designed to elicit general history and personal beliefs about health practices. The other question series were included more for their camouflage than for information expected. It is important to note, however, that information and expressed attitudes spring from unexpected sources. Havighurst (1959) noted that his subjects gave important information about their leisure while talking about their friends or their club or church. Thus the "R" series of questions dealing with non-physical recreations and the "S" series dealing with social activities constitute a possible source of gratuitous information.

General Information Inventory
(G.I.I.)

This instrument (Appendix B) was designed to collect demographic information and to provide a double check on the suitability of the subject for inclusion in the study. It assesses the breadth of the recreational interests of the subject and provides a cross-check on the reliability of the interview data. A face validity is claimed for this instrument.

Life Activity Repertoire
(L.A.R.)

This instrument (Appendix G) fulfilled two functions in processing the information from the Focused Interviews. It first of all provided a means of enumerating the various activities in which the subjects had ever regularly participated. The lists of activities were categorized according to Passmore and Durnin (1965) tables of human energy expenditure. Five categories were struck by which the activities followed by the individual subject were classified and counted. These were:

1.	Sedentary	1.0 - 3.0	K Cal/Minute	
2.	Quiet	3.1 - 5.9	"	" "
3.	Light Active	6.0 - 7.5	"	" "
4.	Active	7.6 - 9.9	"	" "
5.	Very Active	10.0 - 20.0	"	" "

Since this instrument merely classifies and counts a face validity is claimed.

Secondary Participation in Sport

This instrument asks six questions about use of news media and television as a means of sports involvement. The

ratings are scaled on a continuum from complete non-involvement to enthusiastic involvement. A five-point scale of equally appearing intervals is used to produce quasi-interval data which is summated to provide a score indicating level of secondary involvement. An assumption of face validity has been made in using this instrument.

Importance Rating of Various Life Areas (I.R.V.L.A.) (Appendix E)

This instrument was designed to test the importance of eight areas of life that would be of concern to middle-aged men. These were:

(a) Marriage concerns
(b) Play with children
(c) Home maintenance
(d) Social interaction
(e) Job advancement
(f) Hobbies and past-times
(g) Religious concerns
(h) Physical activity

The rating of importance between members of a set of factors has been found to effectively categorize them as to their relative importance. Torgerson (1958) described a paired comparison method in which forced choices were made between each factor paired with all the other factors. The results are summed in terms of proportions of the overall first choices made for each factor. Statements evocative of eight factors were developed by a panel of three graduate students. Each statement was paired with one evoking a different life area. The subjects were forced to make a choice between each of the pairs. A FORTRAN IV program, DERS SCALO 1 was used to score this instrument which rendered interval

scores. These provided group ratings of the hierarchy of the importance accorded these eight areas of life.

Validity of the Instruments

Cronbach and Meehl (1955) review various approaches to the investigation of construct validity. This form of validation is necessary when there is no definite criterion measure of the quality under investigation. In instances like this, the trait or quality underlying the study is of central importance rather than the behavior which is its manifestation.

In proceeding with this study it is recognized that the validity of the constructs are open to question since there is no definite criterion measure of the quality under study. The Technical Recommendations for psychological tests and diagnostic techniques as published by the American Psychologist enunciates the problem succinctly.

> It is...necessary to evaluate construct validity by integrating evidence from many different sources. The problem of construct validation becomes especially acute in the clinical field since for many of the constructs dealt with, it is not a question of finding an imperfect criterion but of finding any criterion at all. (1954:38)

In a review of various approaches to the investigation of Construct Validity, a method suitable for this study was found. It is called the "group differences" method. Applying it to this investigation, it is suggested that the differences between the two groups in various test results will validate constructs about the factors influencing par-

ticipation in sport and activity. For example: This study is based on a construct which conceptualizes participation in sport and physical activity as resulting from an interaction of factors. These are seen to be: activation level, early opportunity to develop skills and attitudes, early positive reinforcement, a present favorable attitude, availability of participation opportunities, belief in the efficacy of regular participation and present existence of positive reinforcement contingencies.

Consideration of these constructs suggests that two populations will differ in a variety of ways. If the test instruments show that significant differences in these factors exist between the participant and non-participant groups, and that these differences are in a logically correct direction, an acceptable level of validity can be claimed.

This proved to be the case in all but two of the instruments. The measurement of secondary sports participation found no significant difference to exist between the two groups. The question thus arises as to its validity. Is the instrument not measuring what it is supposed to measure, or are there no measurable differences between the two groups?

Examination of the questionnaire shows it to have such an obvious face validity that the results are thought to be an indication of the real state of this sample and not

an invalidation of the instrument.

The focused interview for the non-participants produced data about their attitudes which was in part contrary to expectations. This is not taken to be an invalidation of the instrument since other findings were in a similar direction.

The C.S.P.A.E. scores were designed to measure the early environment of the subjects. Scores of the non-participants were generally lower but widely dispersed. If it can be accepted that attitudes are, in a substantial part, the product of previous experience, it is not difficult to accept the fact that the present attitudes of the subjects would follow a trend similar to their early experience. In fact this is what occurred. It is therefore argued that the results of the attitude rating followed, in part, the previous experiences as measured by the C.S.P.A.E. Since the non-participant scores were widely dispersed it was to be expected that the attitude disposition ratings would follow a similar trend. Accordingly, it is suggested that the F.I.N. validly measured the actual state of the subject's attitudes which, among the non-participants, varied widely enough to cause a rejection of the hypothesis.

On these grounds the instruments developed for use in this research are thought to have an acceptable level of validity.

Reliability of the Instruments

The reliability of the test instruments is vested in the accuracy and consistency of the information given. Van Dalen (1962:315) speaks of consistency on repeated measures as a criterion of reliability. Similarly, Kerlinger (1964:429) develops this idea and suggests that reliability is also a measure of accuracy in obtaining true measures of the property under investigation. Further, he states that reliability is a statistical relationship between random and systematic error within the measurement process.

In this study it was not possible to attempt direct measures of reliability since the subjects permitted only one interview. However, reliability is claimed on the basis of test procedures and the circumstances under which the interviews were conducted.

It is noted that in directly questioning subjects about their experiences certain factors tend to influence the flow and quality of information. White's (1953:94) comment about the relationship between the subject and the interview quoted earlier is especially pertinent in this discussion. Recognizing the limitations on reliability within the interview situation he suggests that the motives of the subject and relationship established by the interviewer are significant factors in obtaining reliable information.

Conditions in this research situation allowed an ideal interview climate to develop. The interviewer was able to develop a good rapport with the subjects through his similar age and by his experience in counselling middle-aged men.

The contrast between attitudes and manner of the subjects during the first telephone contact and the later face-to-face interview is a good indication of the speed and ease with which the relationship grew. In the initial telephone call the subjects were brusque and guarded and somewhat patronizing in their agreement to help a "college student".

The author was careful to note the reaction of the subjects at the first introduction. In most cases the initial reaction was surprise at the age of the "college student". This was followed by a general warming of vocal tone and mannerism and a flow of small talk. After this the interviews proceeded with ease and rapport.

The nature of the interview must account for a large measure of the facility in the situation. For the active participants it provided an acceptable situation in which to vent their enthusiasm. Indeed it was often easier to switch off the tape recorder than the subject. The non-participants were under the impression they were participating in a recreational interest survey. Their co-operation

was elicited through an enthusiastic presentation about the need for data about the recreational habits of middle-aged men. Non-participant subjects entered the interview situation favorably disposed to talk about their recreations and as far as could be determined were unaware of the actual purpose of the interview.

In conclusion the claim to reliability of the interview data is based on the situational factors and on the motives of the subjects which, it can be argued, were positively disposed to give information. While it begs the question to argue that the subjects acted on their own free will and so gave honest replies, the fact remains that all had a number of chances to opt out of the study after their initial agreement but chose voluntarily to be involved. On these grounds the researcher is prepared to claim a reasonable level of reliability for the data and the instruments used to obtain it.

A Rating of Socio-Economic Status

Classification of social status was made by Blishen's (1967) Canada census data. The mean income and number of years of schooling required for 343 occupations was calculated and converted to standard scores. The standard scores on the two variables were combined and averaged to produce this scale which ranges from thirty-two to ninety. Blishen obtained high correlations with a number of similar indexes from other countries. Because of this empirical justifica-

tion the scale has been selected to estimate socio-economic status of the subjects in this study.

CHAPTER IV

METHODS AND PROCEDURE

Selection of the Sample Group

Criteria

Subjects for this study were selected on the basis of four criteria which were:

1. Canadian Educational Background.--
   All subjects were products of a Canadian educational system. Since the school is a major source of enculturation it was felt necessary to avoid including subjects educated elsewhere who could bring with them values and attitudes not typical of those engendered in a Canadian School.
2. Minimum Age of Twenty-five.--
   This study investigated men who had completed their education and professional training and were established in their community. Since the school leaving age is eighteen and the normal graduation age from university is twenty-one, a minimum age of twenty-five was thought to ensure stability in the subject's occupational role.
3. Middle or Upper Middle Class Status.--
   Social class factors tend to influence attitudes to health (Anderson, 1963) and sport (Luschen, 1969) in

different ways. This study was therefore limited to men from the middle and upper middle classes.

4. Duration of Participation or Non-Participation.--

Life circumstances of participants differ from those of non-participants. In the former there is a conscious decision and a careful organizing of time and resources to maintain the regimen of participation. The inactive group have usually taken a non-decision in which no action results. In order to qualify for the participant group, an individual had to be regularly active for at least three years. This eliminated the momentary enthusiast. The non-participant was selected after at least five years of continuous non-involvement. Many individuals it is noted have good intentions to exercise. It was felt that if these intentions had not been implemented within the past five years, the likelihood of this occuring later was remote.

Sampling Method

The technique of judgemental sampling was used to secure subjects for the two groups in this study. This technique is widely used in marketing research. Cox (1972:263) describes the judgemental sampling process as one in which subjects are selected on the basis of the researcher's judgement of their unique qualification within the research criteria. No attempt is made for randomness.

The primary intent of this study was to obtain as much information as possible within the limited resources of a solitary researcher. It was realized early in the research design process that the niceties of random sampling were beyond the resources of this project.

The two groups in this study represent the extremes of a physical activity continuum. Since they are extreme groups, they are not frequently seen in the general population and are difficult to locate. A participant group of twenty-five was drawn from the Edmonton Y.M.C.A., the Jogger's Club of Edmonton and the University of Alberta staff. Individuals were selected on the basis of recommendations by the fitness workers or athletic staff of the three organizations.

The non-active individual maintains a low profile. He is not visible at central locations as is the active participant. Thus the problem of identification was more difficult. The non-participants were obtained on the recommendation of the participants who tended to have a rather evangelical fervour about participation. As a result they were able to remember individuals who were persistently inactive. Once appraised of the criteria for selection their judgement of the non-participants was very accurate. Only twenty-seven individuals had to be contacted to obtain the twenty-five non-participant subjects.

Representativeness of the Sample

While no claim is made that the two populations are representative of other than the selection criteria, an attempt was made to balance the two groups according to occupation and location of employment. Thus two sub-groups exist within each of the two groups of twenty-five. These are subjects employed by the university and subjects employed in government or private business in the down town area. The occupations represented are: Systems Analyst, Biologist, Lawyer, Lab Technician, retired Financier, University Administrator, Senior Civil Servant, Chemical Engineer, Business Executive, Purchasing Agent, Sales Executive, Priest, Librarian, Realtor, Legal Officer, Auditor, Geologist, Chemist, Accounting Executive, Financial Officer, Personnel Worker, Sales Manager, Retail Businessman, School Principal, Teacher, Education Executive, Engineer, Personnel Officer.

Selection Procedure

The procedure for selecting subjects was as follows:

(a) Contact was made with recommenders who were in a position to identify subjects, who would meet the criteria.

(b) Names and addresses of the potential subjects were obtained.

(c) Subjects (potential) were contacted by letter to invite their participation in the study (Appendix A).

(d) A follow-up telephone call was made to confirm their involvement and to make an appointment for the interview.

Interview Procedure

Interviews were conducted in the subject's office for their convenience. It was felt to be more practical for the interviewer to go to the subject than vice-versa. Moreover, the subjects would tend to be more at ease in familiar surroundings. The interviews were done privately and the subjects asked to hold incoming telephone calls for its duration. Most agreed to this. The subjects were asked if the interview could be tape-recorded and without exception they agreed. The recorder was set up so as to be out of the subject's view with only the microphone on the desk. The interviewer first recapitulated the reasons for the study and briefly outlined the areas of questioning. After again questioning the agreement of the subject the tape-recorder was started and the interview began. The interview was conducted from a fixed schedule of questions (Appendix C) which were always put in the same order. When supplementary questions were asked, they served to explain or broaden a topic area which had already been opened. They did not range outside the focus of the interview.

At the conclusion of the recorded interview, which normally took fifty minutes to complete, the subjects were asked to complete the written questionnaires. After a short recapitulation of the interview the interviewer left. Immediately following each interview, a worksheet descriptive of the overall situation was completed. Of particular note were remarks by the subject after the formal interview was

concluded. In a number of instances these proved to expand or illuminate statements made for the record.

Treatment of Interview Recordings

After the interview, the researcher transcribed the conversation from the tape to a hand-written transcript. An attempt was made to complete this process as soon as possible after the interview so that impressions of the subject would not be lost. In the transcription process two aspects of the situation were considered. These were: the factual narrative account which was contained in the tape-recorded interview and the subjective data observed in mannerisms, slips of the tongue, corrections, nervousness or fidgeting. This latter information was recorded on the interview schedule sheet or noted on the post-interview worksheet. At the time of transcription, this was integrated with the narrative interview data.

Rating of Interviews and Treatment of Data

A rating scale for use with the focused interviews was developed (Appendix C). Questions were framed so as to yield replies that could be rated on a five-point scale. The rating scales were constructed so as to meet an assumption of linear continuity and of equal-appearing intervals. On this assumption, the rating of interviews produced ordinal data which, it was believed, was possible to treat as quasi-internal data. Kerlinger (1962:425) states a rationale for the treatment of ordinal data as if it were

interval data. He points out that if the assumptions of linearity and of equally appearing intervals can be safely made, the use of ordinal data on an interval scale will not seriously jeopardize results.

On this basis, the results of the interviews have been scaled and summated to provide numerical scores. Two reasons underly the construction of the rating scales. One was to provide, where possible, a means of objectively measuring the variables under study. The other reason was to provide a means whereby the interviews could be rated independently so as to provide a test of inter-rater reliability.

Three tests of reliability were made. Two interviews were selected at random and rated independently by three qualified individuals. Two were graduate students in Physical Education specializing in Sociology of Sport and one was a graduate student in Physical Education specializing in Psychology of Sport. Kendall's coefficient of correlation between these independent raters and the researcher were calculated on the numerical data derived from the interviews. Correlation coefficients are shown in Table I.

A number of variables in this study could not be accurately scored on a rating scale since they were derived indirectly from the data. Since the lives and experiences of the subjects ranged so widely it was impossible to form

TABLE I

COEFFICIENTS OF INTER RATER RELIABILITY

(KENDALL'S METHOD)

	Interview P16	Interview N3
Rater 1	.86	.84
Rater 2	.87	.88
Rater 3	.76	.79

objective measures of all the narratives. Accordingly the interviews were scored first of all in terms of the objective measuring scales constructed. After this they were rated subjectively for the following variables:

(a) Incentives.

(b) Attitudinal Set.

(c) Lists of Activities.

Information received from the processes described above was largely nominal data. Wherever practical, tests of statistical significance were applied. Since the sample size in most of these tests, N = 25, non-parametric tests were employed. For the variables of age, socio-economic status, secondary sports participation and C.S.P.A.E., a median test was used. Seigle (1956:110) suggests that when $N_1 + N_2 = 40$ the X^2 corrected for continuity be used in favour of the Fisher test of exact probability. Further, he notes that where factors cannot be dichotomized in a contin-

gency table ($df > 1$), the X^2 test may be safely used only if fewer than twenty per cent of the cells have an expected freque cy of less than five and if no cell has an expected frequency of less than one. This criterion was met by this study in all cases using Chi-square.

A significance level of $p \leq .05$ was the general standard for all statistical tests employed. Where use of a two-tailed test was indicated the probabilities associated with a given value of Chi-square were treated with the formula p (two-tailed) = 1/2 (p).

CHAPTER V

RESULTS AND DISCUSSION

Age and Socio-Economic Status of the Study Population

The selection process produced fifty subjects from a recommended group of fifty-six. Instructions to the recommenders were most explicit so that a high level of accuracy was achieved in correctly identifying the subjects.

Of the fifty-six individuals recommended, four (P1, P2, N4, N8) were not included in the study population on the grounds of unsuitable educational background. (Criterion No. 1). One was a private school graduate and three had been partly educated outside of Canada.

Difficulty in assigning social class standing (Criterion No.2) caused the elimination of two other subjects (P3, N7). Misclassification of N4 as non-active resulted from his rather covert exercise habits. Interview data later revealed that he was very active indeed so he was reclassified and became subject P18. The remainder were correctly identified as was later confirmed by questionnaire (G.I.I.) replies.

The two study groups have mean ages as follows:

Non-participant (NP) = 41.41 years

Participant (P) = 39.14 years

A Chi-square test of the significance of differences between the medians of the two groups yielded a value of $X^2 = 0.32$, well below the value of 3.84 required for significance at the .05 level on a two-tailed test. The null hypothesis is therefore not rejected. The two groups can be said to come from the same general age population.

A value from the Blishen Socio-Economic Index was assigned to each subject on the basis of his occupation as stated on the G.I.I. Mean scores were:

NP $\bar{X}$ = 66.79

P $\bar{X}$ = 67.41

These clustered in upper half of the range. Since Blishen did not suggest score demarcations for the various social classes, this investigation relied additionally on field observation and comparison to satisfy the social class criterion.

A Chi-square test of the significance of the difference between the medians of the two groups gave a value of $X^2 = .32$. This is markedly below the value of 3.84 which is required for significance at the .05 level for a two-tailed test. The null hypothesis that no significant differences exist between the groups is not rejected. The two groups can be said to be approximately equal in Socio-Economic Index.

On the basis of these statistical tests, the two groups are thought to be equivalent in age and social status.

Testing of Hypotheses

Hypothesis 1: Childhood Sport and Physical Activity Environment

This score was obtained from the rating of eight questions which tested the general areas of: opportunity for involvement during childhood and teen-age; presence of positive reinforcement through appropriate role models; peer group support; adult or institutional support and sport and physical activity climate in the home. Using the five-point scale, a perfect score would be forty.

As a discriminator between the two study populations this instrument was found to be accurate at the .02 level. This suggests that the instrument validly tests the constructs underlying its design.

The Non-participant group scores ranged from 12.0 to 28.5 with a mean of 18.58. The participant group scores ranged from 15.5 to 33.5 with a mean of 24.86. A median test was used to evaluate the significance of the differences between the two groups. A Chi-square value of 6.48 was derived from the test which gave a probability of .018. The null hypothesis is therefore rejected. Since the direction of the differences is obvious, it is safe to state that adult men who are persistently active in sport and physical activity differ in that their childhood sport and physical

activity environments are more positive than men who are not active. Hypothesis 1 of this investigation is therefore supported.

Hypothesis 2: Characteristics of Men Who Are Persistently Active in Sport and Physical Activity

Hypothesis 2a: Duration of Involvement

While the primary criterion for inclusion in this study population was a minimum of three year's continuous involvement, many of the subjects had much longer involvement histories. Table II details the duration of involvement of the active subjects compared to their period of inactivity and their childhood sports environment scores.

With the exception of seven subjects all have been continuously involved in sport and physical activity for periods upward of eight years. Even these seven individuals have more than satisfied the activity criterion for this sample. On these grounds hypothesis 2a is accepted. Men who are persistently active in sport and physical activity are characterized by long-term consistent involvement.

Hypothesis 2b: Friendships and/or Acquaintanceships Growing Out of the Activity

Participants in sport and physical activity were asked three questions pertaining to the social interaction which accompanied or resulted from their involvement. Replies to these questions were scored on a five-point scale

TABLE II

DURATION OF PRESENT INVOLVEMENT, DURATION OF INACTIVITY AND CSPAE SCORES OF PERSISTENTLY ACTIVE MEN

Subject	Age	Duration of Present Involvement	Duration of Inactivity	CSPAE
4	26	8 years	18 years	18
5	42	8 "	10 "	19
6	43	9 "	10 "	19
7	34	14 "	2 "	24
8	51	11 "	18 yrs Intermittent	22
9	43	11 "	10 years	30
10	50	10 "	18 "	30
11	38	4 "	12 "	20.5
12	60	4 "	29 yrs Intermittent	24.5
13	44	4 "	2 years	25.0
14	35	25 "	Always Active*	30.0
15	43	4 "	17 years	25.5
16	32	3 "	5 "	31.5
17	38	28 "	Always Active*	33.5
18	32	5 "	7 years	30.0
19	38	28 "	Always Active*	30.5
20	47	30 "	Always Active*	20.0
21	31	21 "	Always Active*	24.5
22	35	25 "	Always Active*	17.0
23	30	20 "	Always Active*	32.5
24	44	19 "	Always Active*	24.0
25	33	8 "	4 years	24.0
26	35	3 "	22 yrs Intermittent	19.5
27	47	4 "	23 yrs Intermittent	27.0
28	38	10 "	6 years	29.0

Range of involvement time - 3 years to 30 years.
Mean involvement time - $\bar{X}$ = 11.84 years.

* Always active implies that the first 10 years of life were normally active and that subject's recollection of involvement starts at this arbitrary point in the subject's life span.

which provided a continuum ranging from negative through to positive. The replies ranging from neutral to positive were collapsed into one cell and the negative replies were collapsed into another. The results appear in Table III.

TABLE III

REPLIES TO QUESTIONS CONCERNING SOCIAL INTERACTION RESULTING FROM PARTICIPATION IN SPORT AND PHYSICAL ACTIVITY

		Yes	No
B8	Did you make any new friends or acquaintances as a result of participation?	22	3
D3	Overall, has your participation in (this activity) increased the number of people you meet?	20	5
		A Positive Difference	No Difference
D4	Of the people you meet in your activity, how do you feel about the contacts you have with them compared to the contacts you have with other people (family excepted)?	14	11

A Chi-square value of 7.33 for two degrees of freedom was calculated indicating significance at $p > .028$.

The evidence shown in Table III indicates that a significant number of the subjects experienced a widening of social contacts as a result of their participation. Fifty-six per cent of them indicated that the contacts they

had with other people in their activity were different in a positive way.

On these grounds hypothesis 2b is supported: Men who participate in sport and physical activity experience friendships and acquaintanceships growing out of the activity.

Hypothesis 2c: Reward Systems Reinforcing Participation

The existence of a reward system operating to positively reinforce participation must be inferred from interview data. Very few individuals were consciously aware of the continuous balancing of pros and cons of a behavioral sequence. They continue to evaluate activities in terms of their outcome whether it is immediate or deferred. Thus the information to be presented is largely inferential. It was collected from replies to questions B1 - D5 of the F.I.P.

All of the twenty-five subjects had clearly identifiable incentives for being in the activity of their choice.

Subjective data from the interviews revealed the existence of two sets of incentives in nineteen of the subjects. One set of incentives was concerned with the decision to take up a particular physical activity. These were found among subjects who had at one time become

physically inactive and had subsequently been impelled to take up or resume their current activity. This is consistent with Stiles' (1967) findings amongst middle-aged skiers that different incentives operate to impell a commencement of activity than do to maintain involvement in it.

In none of these subjects did an incentive operate alone. The subjects, like most people, do things for a variety of reasons.

In most cases a secondary incentive was to be seen and in some cases a tertiary incentive seemed apparent also. Table IV illustrates the hierarchy of starting incentives apparent through the group.

Establishment and stabilization in an activity pattern resulted in a change in the primary incentive of six subjects (thirty-two per cent). The other thirteen (sixty-eight per cent) retained their initial incentive. Ten of the nineteen changed their secondary incentive as their involvement became more continuous.

Table V displays the starting incentives in comparison with the subsequent incentives to continue the activity. It is important to note that six subjects had maintained a life-long involvement in sport and physical activity. Their motives for starting were unremembered or unclear. Thus the data on starting incentive is based on N = 19 while the data on continuing incentives are based on N = 25.

TABLE IV

THE OBSERVED HIERARCHY OF STARTING INCENTIVES OF A GROUP OF PHYSICALLY ACTIVE MEN

			N		Per Cent
Primary Incentives:	1.	Conservance	14		74%
	2.	Affiliation	3		16%
	3.	Self-Actualization	2		10%
				Total	100%
Secondary Incentives:	1.	Affiliation	10		53%
	2.	Competence	7		37%
	3.	Self-Actualization	2		10%
				Total	100%
Tertiary Incentives:	1.	Achievement	5		26%
	2.	Affiliation	3		16%
	3.	Competence	4		21%
	4.	Conservance	1		5%
	5.	Tension release (catharsis)	1		5%
	6.	None identifiable	5		26%
				Total	100%

In affirming hypothesis 2c which posits the existence of a reward system reinforcing participation, the investigator points to Table IV as evidence. While it begs the question to suggest that continued persistent involvement in the presence of punishment or hardship is unlikely, no evidence of these inverted incentives was seen. The subjects were uniformly enthusiastic about their involvement. On these grounds hypothesis 2c is accepted.

TABLE V

INCENTIVES TO CONTINUE IN THE ACTIVITY

COMPARED TO STARTING INCENTIVES

A Starting Incentives N = 19			B Continuing Incentives* N = 25		
Primary Incentive	N	Per Cent	Continuing Incentive	N	Per Cent
1. Conservance	14	74%	1. Conservance	13	52%
2. Affiliation	3	16%	2. Affiliation	7	28%
3. Self-Actualization	2	10%	3. Achievement	2	8%
			4. Competence	2	8%
			5. Self-Actualization	1	4%
Secondary Incentive	N	Per Cent	Secondary Incentive	N	Per Cent
1. Affiliation	10	53%	1. Affiliation	7	28%
2. Competence	7	37%	2. Competence	9	36%
3. Self-Actualization	2	10%	3. Achievement	7	7%
			4. Catharsis	1	4%
			5. Self-Actualization	1	4%
Tertiary Incentive	N	Per Cent	Tertiary Incentive	N	Per Cent
1. Achievement	5	26%	1. Achievement	6	24%
2. Affiliation	3	16%	2. Affiliation	4	16%
3. Competence	4	21%	3. Competence	9	36%
4. Other	2	10%	4. Other	2	8%
5. None Observed	5	26%	5. None Observed	4	16%

* From four to fourteen years ($\bar{X}$ = 7.4 years) had elapsed from the establishment of the starting incentives (A) and the subsequent incentives to continue the involvement (B).

Hypothesis 2d: Expressions of Enthusiasm

It is difficult to maintain the proper degree of objectivity in the face of the unbridled enthusiasm seen in this group of men. Without exception each subject was highly enthusiastic about his involvement in sport and physical activity and particularly about the effects it had on his life. No statistical test will be attempted to add support to this data. The following statements are typical of those made and are categorized by the incentive system they are thought to represent.

Conservance:--Seventy-four per cent of the sample indicated this as a primary incentive for starting and fifty-two felt this was their primary incentive for continuing, e.g.

P18 Age 32 - "I don't feel good if I don't exercise regularly. "I never miss."

P27 Age 47 - "About four years ago I began to feel like I was starting to get old and I knew I had to do something."

P9 Age 43 - "I'm not going to live forever, but while I live, I want to be in reasonable good shape."

Affiliation:--Twelve per cent of the sample indicated that this was their primary motive for starting while twenty-eight stated that this was their incentive for continuing in the activity, e.g.

P13 Age 44 - " I have formed friendships with people there." "You compare yourself with other guys who are with you."

P17 Age 38 - "You get to know more people (in sport) and there is friendly 'jock-talk' in the locker-room."

P20 Age 47 - "My object is not to play well. My interest is in people rather than being a hot-shot player."

Competence:--Two per cent of the sample indicated that their primary incentive was competence while thirty-six per cent indicated this as a secondary incentive for their continuing involvement, e.g.

P22 Age 35 - "I've been active all my life and will continue 'till the day I die. I feel good now."

P25 Age 33 - "I like something that's physically active. I enjoy running and feeling the wind on my face."

P6 Age 43 - (Re Handball) "I like it because...I have to work hard once a day."

Achievement:--This incentive appears predominately as a secondary motive for participation. Thirty-six per cent of the sample declared that this was an important incentive in their continuing to participate. Eight per cent indicated that achievement was their primary incentive, e.g.

P6 Age 43 - "My friends admire my condition and continually are amazed at my age. They say I look ten year's younger."

P11 Age 38 - "I have a great sense of accomplishment. I started out to do something and I've finally achieved it. I get a great feeling of well-being."

P22 Age 35 - (Re Skiing) "I've never taken a lesson in my life, I just got out and taught myself."

Other incentives operate at the secondary and tertiary level but the majority of the types found has now been presented. On this basis hypothesis 2d is supported.

Hypothesis 2e: Sport and Physical Activity Have a High Position in the Hierarchy of Life Activities of Physically Active Men

The results of the I.R.V.L.A. questionnaire are beyond expectations. Of the eight areas of life that could be significant to middle-aged men, physical fitness and the physical recreations were more frequently chosen over the seven other factors. Table VI displays the cumulative results for the physically active group.

On this evidence hypothesis 2e is accepted. Men who are active in sport and physical activity rate their involvement in these activities high in the hierarchy of their life activities.

Hypothesis 3: Characteristics of Men Who Have Been Persistently Non-active in Sport and Physical Activity

Hypothesis 3a: Consistent Non-Participation Throughout the Adult Life

Very few adults report themselves as being inactive. The physically inactive middle-class man has approximately the same amount of discretionary time as those who are physically active. The decisive point in fitness terms is how this time is used. Many of the persistently non-active in-

TABLE VI

HIERARCHY OF IMPORTANCE OF VARIOUS LIFE ACTIVITIES TO PHYSICALLY ACTIVE MIDDLE-AGED MEN

	Life Areas	Scale Values	Transformed Scale Values $S + 1$	$\frac{S + 1}{S_1 + 1}$
1.	Physical Activity	0.414	1.414	1.00
2.	Marriage Concerns	0.344	1.344	0.95
3.	Play with Children	0.234	1.234	0.87
4.	Hobbies and Past-times	0.175	1.175	0.83
5.	Job Advancement	-0.043	0.957	0.68
6.	Home Maintenance	-0.088	0.912	0.65
7.	Social Interaction	-0.097	0.903	0.64
8.	Religious Concerns	-0.939	0.061	0.04

dividuals have activity patterns which include low energy output activities. These are pursued on a casual happen-chance basis. For example, subject N13 plays paddle ball about once a month with a friend. Subject N3 plays soft-ball in a community league once a week for six weeks each spring. N16 took tennis lessons through the city recreation department about four years ago. He has never played the game since. N21 golfs about four times each summer and is a spare for his department curling rink in the winter. N18 occasionally does some "5BX", as he calls it. He

spends about five minutes each time but has never established a fixed routine nor has he progressed from his starting level. N1 took swimming lessons three years ago and has not been in a pool since. These are typical examples of the activity involvement of the persistently non-active subjects. Only five (twenty per cent) could be properly described as completely non-active. The remaining eighty per cent are active at a sub-minimal level as operationally defined.

As a means of comparing the activity choices of the two groups of men, activities were rated using Passmore and Durnin's (1965) tables of human energy expenditure. For the purposes of this study the activities were divided into five groups on the basis of energy expended. The groupings were arbitrarily assigned the classifications - Sedentary, Quiet, Light Active, Active and Very Active. (Appendix G)

The interviews of both groups of subjects were audited to select all the activities in which they had ever been regularly involved. After collapsing the Sedentary-Quiet groupings into one cell of the matrix and the Active-Very Active groupings into one cell, a 2 x 3 contingency matrix was formed. Table VII displays this data.

A Chi-square test indicates a significant difference in activity choices over the life span. On the basis of interview data it appears that non-participants in sport and physical activity have consistently chosen sedentary and

TABLE VII

RECREATIONAL ACTIVITIES FOLLOWED REGULARLY

FROM CHILDHOOD TO PRESENT

N = 50

	Sedentary Quiet	Light Active	Active Very Active
Non-Participant	250	67	91
Participants	174	54	137

light active recreations over the active and very active recreations. In making this calculation, a Chi-square value of 28.33 was obtained indicating significance at $p = < .001$ with two degrees of freedom.

On this evidence hypothesis 3a is accepted. Adult men who are persistently non-active in sport and physical activity have been consistently so throughout their adult life.

Hypothesis 3b: Previous Sport and Physical Activity Histories Characterized by Low Satisfaction and Frustration

This hypothesis was tested by the C.S.P.A.E. rating, questions B1, B2, B3, P1, P2, P3 and P9. The intent was to discover incidents or situations in the subject's previous experience which might have coloured his attitude to participation in sport and physical activity as an adult. Also, to form an impression of how the subject himself regarded

his previous experience. The subjective evaluation of the twenty-five interviews is summarized in Table VIII.

TABLE VIII

RATING OF NON-PARTICIPANT INTERVIEWS FOR PREVIOUS EXPERIENCES AS A BASIS FOR ATTITUDE PREDISPOSITION

N = 25

Satisfying Experiences Positive Attitudes	10	40%
Neutral Experiences Neutral Attitudes	5	20%
Unsatisfying Experiences Negative Attitudes	10	40%

Since forty per cent (fifteen) of the interviews disclosed a previous history that was positive and forty per cent which were negative there seems to be little grounds to support the hypothesis that all non-participants have had unsatisfying experiences with sport and physical activity. Hypothesis 3b is not accepted.

This finding was unexpected since it had previously been thought that avoidance or non-participation in sport and physical activity resulted from a history of negative experience. A comparison of the attitude predispositions of this group with their C.S.P.A.E. score discloses a close parallel. About forty per cent of the subjects have a rel-

atively positive background, i.e. they were above the group mean. Similarly, a group of about forty per cent of the sample were below the mean. It would appear that previous experience did not operate alone in influencing the decision to participate.

Hypothesis 3c: Sport and Physical Activity Have a Low Position in the Hierarchy of Life Activities of Persistently Non-Active Men

The results of the I.R.V.L.A. questionnaire for the non-participant group are displayed in Table IX.

TABLE IX

HIERARCHY OF IMPORTANCE OF VARIOUS LIFE ACTIVITIES TO NON-PARTICIPANTS IN SPORTS AND PHYSICAL ACTIVITY

	Life Areas	Scale Values	Transformed Values $S + 1$	Comparative Importance $\frac{S + 1}{S_1 + 1}$
1.	Play with Children	0.531	1.531	1.00
2.	Marriage Concerns	0.364	1.364	.89
3.	Hobbies and Past-times	0.266	1.266	.83
4.	Home Maintenance	0.194	1.194	.78
5.	Job Advancement	0.020	1.020	.67
6.	Social Interaction	-0.159	0.841	.55
7.	Physical Activity	-0.574	0.426	.29
8.	Religious Concerns	-0.641	0.359	.23

On this evidence hypothesis 3c is accepted. Men who are not active in sport and physical activity rate physical fitness and physical recreations low in importance among the various activities in their lives.

Hypothesis 3d: Non-Active Men are Negatively Disposed to Their Own Participation in Sport and Physical Activity

The interviews of the non-participant men were rated as to the indications of attitudinal disposition. On the basis of attitude ratings, the non-participants fell into four distinct groupings. These were: Conditionally Positive (11), Positive (3), Negative (6), and Conditionally Negative (6).

It is notable that none of the twenty-five interviews could be rated as neutral. This is to be expected considering the mean age of the sample (forty-one years), for it seems unlikely that men could arrive at mid-life without some previous experience on which attitude could be based.

Conditionally Positive Attitudes

Interviews were classified as Conditionally Positive if they contained statements of attitude by a subject which gave qualified endorsement of their own involvement in sport and physical activity. This, or an ambivalence within a generally positive attitudinal set was the basis for the classification.

Eleven individuals (forty-four per cent of the sample) made statements which were classified as conditionally positive. Of this group seven engaged in some form of light activity about once or twice a week. They were not regular at it. They did not take the activity seriously and tended to emphasize its casual nature. Eight of the group expressed some concern about their fitness, stating that they had noticed a decline in their ability to perform actively. They vocalized an intent to do something about it in the near future. Of this eight, five indulged in a token activity which rated too low in energy output to have any real exercise value. Of the eleven, six were not troubled by weight control problems, while three were tending to obesity and two to overweight. Seven of the conditionally positive group maintained a family-centred social life with interactions involving the family and close friends. The other four were active socially either at home where they entertained extensively or through cabarets and private clubs.

Positive Attitudes

A rating of positive was given to interview data containing uncontradicted statements of enthusiasm or a personal identification with direct participation in sport and physical activity.

Positive attitudes to their own involvement were expressed by three members of the non-participant group (12.0 per cent). They declared that it was important for them to

get some physical activity. The interview disclosed that the frequency and intensity of their exposure was such as to be useless in providing a source of physical conditioning. In the past five years all had made several starts in some activity which they attended about once a week for periods of up to four months. All presently retained a token activity level which they felt was satisfactory for them. This amounted to about ten minutes of "setting-up" exercise performed irregularly throughout the week. Two of these subjects were endomorphic and tended to obesity. Both described life styles with strong social orientations. They stated that they entertained often and enjoyed good food and drink. They maintained a secondary sports participation through television. The third positively oriented subject (N14) tended to intellectualize physical activity participation. He admitted to a sense of duty to be physically active but repeatedly stressed that he did not wish to do anything strenuous. His approach to physical activity was tentative and unrelated to needs or capacities of a man of his age and health status.

Negative Attitudes

A rating of negative was given to interview data containing statements expressing disapproval or hostility to the participation circumstances.

Negative attitudes to their own participation in sport and physical activity were shown by six subjects

(twenty-four per cent of the sample). Three of this group were men over fifty. All have had military service during World War II and expressed a dislike for the physical training regimen to which they were exposed. All were cerebral persons who were widely read and articulate. All tended to maintain a small circle of friends and expressed a disinclination to meet people and a dislike for large social gatherings. They regarded leisure as a chance for quiet reflection and conservation of their energy.

Competitive activities were anathema to them. Each described a number of confrontations with vigorously competitive people in recreational settings from which they withdrew.

One (N9) was quite vocal about his experience with an acquaintance who died of a coronary attack after straining himself through exertion. All of these three scored in the bottom third of the C.S.P.A.E. rating and subjective evidence indicated a predominance of non-physical activities as part of their youthful recreations.

The second three of this group were men thirty-seven, thirty-nine and forty years of age. Two of them sought recreational activities that have a practical or tangible outcome. They were unable to see themselves involved in exercise for its own sake, feeling that an activity should be pursued for itself and that the exercise value was incidental

to the outcome. These two men were family-centred and sought out recreations which involved their children. Although both were active athletes during their youth they have effectively ruled themselves out of sporting activities through a belief that they are now too old. Both aspired to a pro-hockey career in their youth but were unable to accept the idea that this could be a physical recreation for them. Both were active sports' spectators making use of television or attending games in person.

The third of this trio (N11) has effectively withdrawn from vigorous activity through fear of a coronary attack. His father was incapacitated all his adult life as a result of an early attack. This has been a dominant influence on the subject's activity behavior since he reached adulthood. He reported a quiet social life through a private club where he was a member. He engaged in some token physical activity which he performed when he felt like it. This took the form of some occasional light calisthenics which lasted about five minutes.

Two of this group (N3, N11) indicated that they were moderately active socially. They maintained contact with a small circle of friends and were not attracted to large groups or to new people. The third individual (N30) was most active socially but confined his socializing to interactions in a non-athletic setting.

All of this sub-group scored at or above the non-participant mean on [redacted] C.S.P.A.E. rating.

Conditionally Negative Attitudes

Interviews containing statements implying disapproval of sport and physical activity or which indicated a non-identification with the participation circumstance were scored conditionally negative.

Five subjects were defined as having conditionally negative attitudes. This was twenty per cent of the sample. Four of these men satisfied their perceived exercise requirements through practical tasks around their home and in activity with their families. They were somewhat negative to the idea of sports or physical activity participation for its exercise value alone. Statements such as "I don't need 5BX", and "I don't want to build muscles" are indicative of their attitudes and levels of understanding. Three of this group listed themselves as moderately active socially (score two) on a five-point continuous scale. The fourth subject in the group rated himself as active socially (score three) on this scale but interview data revealed that he was reluctantly socializing since his wife set the pace for him.

The fifth member of the conditionally negative group was a social recluse with no social contacts apart from his job. He was unmarried. His interview revealed that his major leisure activities were reading fiction, television

TABLE X

EXPRESSED OR IMPLIED REASONS FOR NON-PARTICIPATION IN SPORT AND PHYSICAL ACTIVITY

N = 25

		Number	Per Cent
1.	"My present recreations give me enough exercise."	14	56%
2.	"I don't have a weight problem so I don't need exercise."	11	44%
3.	"I don't need exercise, I need rest."	4	16%
4.	"I'm too busy to take the time to exercise."	3	12%
5.	"The danger of a heart attack prevents me from exerting myself in exercise."	3	12%

* Since there is some duplication between subjects in these reasons, these percentage figures total more than 100 per cent.

are, in fact, getting enough physical activity from their daily activities.

Three individuals declared they were too busy with other affairs to get involved in a regular physical activity plan. Two of these men were concerned about weight control and their exercise needs but had not then been able to order their affairs to follow an exercise plan.

and listening to country-western music.

Three of this sub-group made use of television for sports spectatorship. The other two were disinterested. None are sports event attenders.

All five of these subjects tended towards ectomorphic body types. As a result they were without weight control problems. Three of them vocalized what seemed to be a commonly held belief that since they had no problem with weight control, they were fit.

All agreed that if formal exercise was necessary through a medical prescriptfon they would partake. Four of this group of five scored below the mean C.S.P.A.E. rating for non-participants. The other member scored 22.5 placing him in the upper quartile of the non-participants but still below the participant mean of 24.86.

Reasons for non-participation are summarized in Table X. They tend to be of a pragmatic nature as exemplified by the eleven without a weight control problem. Here the implication is clear: that since no problem exists no action is necessary. This represents a misunderstanding by these subjects of the characteristics of physical fitness. Similarly, a mis-assessment of exercise needs is expressed by those stating that their job or their recreations provide enough activity. In light of the nature of their sedentary jobs and quiet recreations, it is unlikely that these men

Three subjects expressed a concern about the dangers of a coronary attack resulting from physical exertion. Each of these men had vivid experiences with this situation and were therefore reluctant to expose themselves to a similar occurrence.

The distribution of degrees of negativeness and positiveness to participation in sport and physical activity does not suggest a direction that can be considered significant. The significance of this data must lie in its subjective content which may provide insights into why the various attitudes are held. This aspect of the problem will be considered in the following sections of this chapter. At this point hypothesis 3d failed to be accepted. Men who are non-active in sport and physical activity are not significantly negative in their attitude towards participation in sport and physical activity.

Hypothesis 4: Adult Men Who Are Persistently Active in Sport and Physical Activity Will Differ in Health From Men who are Non-Active

All subjects in this study were asked to make a subjective rating of their own health. This was part of the G.I.I. questionnaire. They scored this on a five-point scale which ranged from Excellent at the high end to Poor at the low end. None of the subjects indicated a personal health rating of below the mid-point of the scale which was Average. The results were treated as nominal data. A 3 X 2

contingency table was used to compare the two groups. See Table XI for a display of the data.

TABLE XI

PERSONAL HEALTH RATING

	Non-Participants	Participants
Average	8	2
Good	9	5
Excellent	8	18

$X^2 = 8.60$, $df = 2$, $p \leq .01$

A Chi-square value of 8.60 for two degrees of freedom was calculated. Under the null hypothesis p = .01. Therefore the two groups are considered to be different. Hypothesis 4 is accepted. Physically active men perceive their own health to be different from non-active men. While the direction of this difference was not predicted, it is notable that the active men rate themselves in excellent health more frequently than do non-active men.

Hypothesis 5: Men Who Are Active in Sport and Physical Activity Will Differ in the Perception of Their Level of Their Activity From Men Who are Non-Active

Both groups of subjects in this study responded to a question which asked them to rate their level of activity in their daily lives. This was scored by the subject on a

five-point scale which ranged from Very Active at the high end to quiet at the low end. None of the subjects indicated that they rated themselves as quiet. Thus results fell into four categories. See Table XII for a display of the data.

TABLE XII

SUBJECT'S RATING OF HIS
OWN ACTIVITY LEVEL

	Very Active	Quite Active	Active	Deliberate
Participant	11	11	4	0
Non-Participant	1	7	7	10

$X^2 = 19.8$, $df = 3$, $p \leq .001$

A Chi-square value of 19.80 was derived. For three degrees of freedom $p \leq .001$. Thus the hypothesis is accepted. The two groups of men perceived their level of activity differently. The direction of the differences between the two groups is obvious and will be discussed later in this chapter.

Hypothesis 6: Adult Men Who Are Persistently Active in Sport and Physical Activity Will Differ in Their Secondary Sports Participation From Men Who Are Non-Active

Subjects in both groups completed the Secondary Sports Participation (S.S.P.) questionnaire. This was

comprised of six questions relating to use of news media and word-of-mouth to further an interest in sport. Replies were given by the subject on a five-point scale which was summated. The scores were arranged on a continuum from low to high (Table XIII) and a Chi-square value of $X^2 = 1.28$ was calculated from a median test. These findings provided little support for the hypothesis so the two groups can be said to be the same. Thus hypothesis 6 is rejected. Active men do not differ in their secondary sports participation from inactive men.

TABLE XIII

CALCULATION OF THE COMPARISON OF SECONDARY SPORT PARTICIPATION SCORES

	Above the Group Median	Below the Group Median
Participants	15	10
Non-Participants	10	15

$X^2 = 1.28$, df = 1, $p < 0.1$

On the basis of indicated attitude it would be expected that the physically active men would have more secondary involvement in sport than the non-active men. This

finding was therefore unexpected.

It is suggested that propagation of sports information through the news media impinges on both groups with equal force and that interest in sport spectatorship is independent of personal involvement in a sport or physical activity. Observation of the data would tend to support this hypothesis. For example, in the non-active men high S.S.P. scores were seen as frequently among those with negative attitudes as those with positive attitudes and vice versa. The active men varied as widely with some of the most active individuals (P17, P24), disclaiming any interest or knowledge of the spectator sports whatsoever.

Discussion of Factors Involved in Avoidance or Participation in Sport and Physical Activity

In the sections that follow, specific examples within the study population will be used to illustrate the factors influencing involvement in sport and physical activity. Certain other factors which were seen to grow out of the normal flow of life will be discussed as to their effects on participation in sport and physical activity. From the evaluation of the attitudes of both groups, typologies descriptive of specific segments of the population will be constructed.

Activity Level as a Factor Influencing Participation

It has been noted that the activity level of the

individual is biologically determined and that individuals seek an optimum level of stimulation from their environment. From this it was hypothesized that the persistently active men in this study would report their own level of activity as being high while the non-participant would report their activity at a lower level. This hypothesis was supported. Corroboration was given by the L.A.R. rating in which the non-active men reported having participated in fewer vigorous activities over their life than the participants.

Certain individuals in the non-participant group gave evidence of low levels of activity, (N2, N9, N14, N20, N24). All these subjects were quiet reflective individuals who reported no vigorous activity in their life spans. They reported no activities rated very active or even active. They have never ran, struggled or strained at any physical activity. They described their parents as invalids or quiet by nature. This empirical evidence supports the concept of biologically pre-determined activity level.

It would be a simplification to conclude that persistent non-participation resulted from a low activity level caused by hereditary factors. Accepting the fact that the non-participant group was less physically active, the examples of N5, N12 and N30 pose a problem to be explained. These three individuals were most busy and active men. They had favourable activity histories. All had good repertoires of physical experiences so a concept of a biologically pre-

determined activity level does not help to explain their non-participation. An examination of their attitudes to sport and physical activity participation seems a likely source of explanation. This will be considered in a later section.

In conclusion, it would appear that certain of the non-participant group likely are less active than normal but that this rationale is only partly useful in explaining the non-participation of the whole group.

Completion of Education as a Factor in Physical Activity Participation

Completion of their education, resulted in curtailment of a regular physical activity regimen for thirty-three members of the total population. Since much of the physical activity to which the subjects were exposed occurred as part of their formal education, the completion of this phase of their life had the primary effect of eliminating a convenient accessible source of physical activity.

The entry into the work force resulted in a substantial dislocation of their youthful activity patterns. Some subjects moved away from their home town to new centres and so lost contact with sources of activity. Others were thrust into job training which required evening study and long hours of extra training. This effectively removed them from the circles in which they had found physical activity participation. The entry into adulthood was often accompanied

by a lowered income as the subjects articled or completed the early stages of career orientation in which they were paid a fraction of their ultimate salary. Thus those subjects who were inclined to continue some form of participation were effectively phased out through life circumstances.

It is notable that only eight of the total sample sustained their activity patterns throughout this period. Two (P17 and P19), were top calibre athletes whose sports involvement bridged the gap between university and club participation. Two (P21 and P2), were expert skiers whose activity was independent of their formal education. Two (P14 and P22), were lawyers whose office location was adjacent to down town facilities where they found a low cost convenient exercise site. Two (P20 and P24), were generalists without a single strong activity allegiance. This latter pair are of particular note since their backgrounds were not entirely favourable. As they described their lives one fact continued to emerge; they thoroughly enjoyed the physical activities in which they participated. Further, they were able to find activities in which they could involve their young wife and later their children. Both discovered early a general need for activity apart from their physical recreations. This they met through cycling, swimming and walking which they integrated into their daily round.

Marriage and Profession as Factors Influencing Participation

Marriage has a powerful and lasting effect on the physical activity pattern of the young active man. Much depends on the values and attitudes of the wife but even in ideal circumstances the tendency to withdraw from vigorous activity is accentuated by marriage. For the young single man, active participation is regarded as a healthy acceptable activity. It is, after all, a more desirable alternative to activities such as drinking and licentiousness in the eyes of parents and the established regiments of society. After marriage this changes; the young man is no longer able to pursue his activities unimpeded.

Subtle pressure from in-laws, from parents, make clear that his activity must take second place to his marriage responsibilities. Employers are less than sympathetic to absences from work for athletic endeavours or injury. The financial loss accompanying these episodes emphasize the inappropriateness of his athletic involvement. Job training becomes important to improve income. Less and less he is able to be involved with his unmarried friends. More and more he either includes his wife in his recreation or does not participate. The pressure is inexorable. The young man accepts his changing role and in most instances he enjoys it. The birth of his first child usually completes his withdrawal from his youthful activities. He accepts this new role and turns more to passive activities and spec-

tator sport for recreation.

Activity Interruption Due to Marriage or Job Pressures

The pattern in which a physical activity regimen was interrupted due to marriage is seen in sixteen of the active group. Subject P9 describes an active youth involvement as a gymnastic's leader in the provincial sports and recreation program. After marriage he and his wife would frequently travel on week-ends to the farm of her family. He bought a house in the city and took a management course which occupied him in the evening. By age twenty-five he was completely disengaged from his previous participation.

Similarly subject P6 experienced an interruption of twelve years which closely paralleled his marriage. His wife's strongly ethnic background caused her to oppose any regular activity involvement. This was one of several stressful factors which resulted in divorce.

The case of subject P8 is an example of job pressure resulting in gradual withdrawal from activity. This man joined a brokerage house in an eastern city. He was encouraged to study at night school and after marriage was involved in church and in social affairs connected with his job. A number of transfers over the next five years saw him in four different cities. This effectively severed a Y.M.C.A. involvement he had enjoyed since early boyhood. Separation from friends, familiar activities and surroundings caused him to

abandon any idea of re-establishing his former pattern.

Subject P10 had a most successful and rewarding youthful athletic career which he pursued into the Air Force during World War II. The university years following his discharge from the service were full of pressure and hard work. Newly married, he and his wife subsisted on part-time employment and a Veteran Student's allowance. Two children were born during this time increasing the load on the family. Thus there was no time or money for recreation. Moreover, this subject had very few useable skills with which to obtain exercise since his repertoire included only team sports such as baseball, football and hockey. He was thus very effectively phased out of a physical activity regimen.

Activity Abandoned After Marriage

A number of the non-participant group were directly affected by their marriage. Five of the group were active in sport and physical activity as a young person and subsequently dropped out after they married. Notable were subjects N3, N27, N28. All of these had good positive backgrounds in sport and physical activity. Their C.S.P.A.E. scores were:

N3 - 23.5
N27 - 28.5
N28 - 25.5

Compared to the participant group mean of 24.86 they rate quite well so should retain a positive attitude.

On marriage these three abandoned their activity regimen completely. N28 moved from his home village to the city coincidental with his marriage. This, plus a lack of encouragement from his wife prevented him from re-establishing activity contacts in the new community. N27 was an active participant in high school and university. On graduation he married and did not establish any activity contacts. Instead, he and his new bride embarked on a most active social life in the cafe society of a large city.

Subjects N16 and N1 did not have very favourable childhood sports environments. Both came from strongly religious families. They both married young and became heavily involved in the family of their wife. Both experienced a substantial dislocation of their previous physical activity patterns. N16 had been an active outdoors-man with a few close friends who hunted and fished with him. On marriage, conflict arose between his wife and his friends so the friends and the activities were abandoned. N1 became extensively involved with his wife in the church as advisors to a youth group. His previous involvement in hockey, curling and softball were abandoned. After the arrival of their first child the youthwork ceased.

The subject then began to work at improving his house and taking correspondence courses to upgrade his job proficiency. These were his only recreations.

In each of the cases just described, the subjects have broken with their past activity pattern at the time of their marriage. Later they have been unable or unwilling to resume, either through inertia or because they did not see physical activity as appropriate for men of their age.

Continuous Activity Reconciled With Marriage Responsibilities

Consideration of the life-long active group (nine subjects) provides an interesting contrast to the previous section. These men managed to avoid the interruption in their activities seen in the other sixteen active subjects. At the time of the research, three of the life-long actives were unmarried. This is seventy-five per cent of the single men in the total sample. They had not had to make a choice between marriage and sport. The remaining six in this group had transcended these difficulties in various ways.

P20 and P24 managed to integrate their spouse into their activities. They played tennis in the summer and badminton in the winter and supplemented this with cross-country skiing. Both walked or cycled to work. One was an avid dancer and this provided exercise and a chance to interact with his wife. In these two cases the men have made their activity regimen congruent with the recreational needs of their wife. An interesting speculation is the shape or content of their regimen if their wives had been disinclined to join them.

Subject P19 was well established in his career when he married. His exercise pattern followed his working hours so no conflict had occurred. Similarly P14 had pursued most of his physical activity within his business day so it did not interfere with family life. Additionally, his wife joined him at badminton and the whole family (four) participated in various outdoor activities.

P17 had experienced some resistance from his wife and a state of impasse seemed to have existed concerning his participation. He participated as fully as he was able but felt guilty about depriving his children of his company. His wife was somewhat aggrieved but was mollified by the occasional social event resulting from the activity. P19, previously mentioned, had experienced some resistance resulting from an expansion of activities into a Sunday. The subject noted that this feeling pervaded all the wives in the Sunday group and reported that the men were considering ways of keeping their wives happy while they were playing.

Thus three general techniques were employed by the actives to satisfy the demands of marriage and family.

(a) Attempts at congruency.

(b) Parallelism.

(c) Compensation.

Reactions to Physical Changes at Middle-Age

The coming of middle-age and its problems has been discussed earlier in this paper. As was noted there, the actual age of the individual at the time of its onset varies widely. The natural process of aging seems to have a psycho-social as well as an endocrine basis. Within this study population certain individuals seemed to be pre-disposed to accept the limitations of middle-age more readily than others. This was particularly apparent in the non-participant group. Buhler's (1936) description of the transition from expansion to preservation which occurs in the middle years most aptly describes a number of the subjects in this study.

It has been noted that seventy-four per cent of the participant sample indicated that conservance was their primary incentive for resuming their activity regimen. They responded to the deterioration of their physical capacity with direct action. Subject P8, age 51, described his shock at collapsing after a partial game of handball when he was age forty. This provided him with a strong incentive to improve his fitness. Contrast this with N3, age 37, whose retirement from hockey occurred when at twenty-seven he discovered that his capacity to play was impaired by unfitness.

P6 and P15, both age 43, reported health and weight control problems. P6 was thirty pounds over his recommended weight and had incipient diabetes. P15 was diagnosed as

hypertensive and ulcer-prone in addition to being forty-five pounds overweight. Both men are assumed to have had marital problems, as they have since been divorced from their wives.

It would be too sweeping a generalization to equate their improved fitness with the solving of their complicated personal problems. Nonetheless, both subjects indicated that their improved appearance and fitness was the single-most important factor in improving the quality of their lives. At the time of the interview, they were apparently very satisfied, confident and happy men.

Some interesting contrasts were seen to exist between members of the two study populations in their adjustments to the aging process. P10, aged 50, took up skiing ten years ago in response to a need for activity and for a change in his life. He wanted a challenge. Since starting, he had learned to ski at a very high level. This led him to try swimming and tennis both of which he enjoyed with his wife and family. He participated actively in the social activities around skiing and tennis. He too, was a happy, satisfied individual who was enjoying life to the full. A contrast was seen in N9, aged 51, who reported a number of sedentary recreations in which he participated with his wife. He complained that his circle of friends was shrinking due to people moving away and he opined that perhaps he was "a bit of a stick in the mud." He described a limited recrea-

tional repertoire; he used to dance, he once played badminton, he used to curl. All these had been abandoned in the past decade. His children had grown up so he and his wife were alone. He regarded himself as a quiet, deliberate person. He appeared to be reasonably content with his life but unquestionably he had ceased to expand his interests and was more directed to preservation than to seeking novelty or innovation.

A natural adjustment to the physical decline associated with aging was the selection of activities which were within the physical capacity of the individual. Thus the onset of incapacity was accompanied by the abandonment of the vigorous activities and a seeking of those less physically demanding. A companion process to this was the development of rationalizations for the abandonment of the earlier activity pattern. There were many examples in the non-participant group. N1, aged 32, had withdrawn from vigorous activity on leaving high school. At the time of the interview he had been largely inactive for twelve years. He indicated that his main concern was to play with his children and to ensure that they were not deprived of activities as he had been in childhood.

N17, aged 50, had once been a city champion at tennis. His profession had increasingly occupied him and filled his leisure time with quasi-professional responsibilities. By age 30 he was no longer inclined to play tennis. At the time

of the interview he described himself as too old for the game. At the same time he described how he and a friend accompanied their families skiing, wore the clothing and equipment and went through the motions of having a few runs. Mostly they had a few drinks and spectated. His description of this situation was tinged with satisfaction at having avoided a demanding task. He no longer regarded the challenge of activity as something to which he wanted to respond. He indicated that he felt that his age was a limiting factor in choosing activities.

The examples discussed here have illustrated differences in reaction to the aging process. Non-participants have been shown to avoid vigorous physical activity and to rationalize their reduced capacity for physical performance. The active participants have responded to changes in physique and capacity to perform by seeking means of self-improvement. These have led to a widening of activity and an improved quality of life.

Availability of Participation Opportunities

As Birch and Veroff (1966) point out in their theory of motivation, a course of action is determined by the availability within the situation for the appropriate behavior to occur. This, they say, is determined by past experience which influences how the situation is perceived and by the circumstances at work at the time.

Availability Affected by Attitude

Many of the non-participant subjects were ideally situated to participate in a regular activity program. The costs were well within their financial resources and the facilities conveniently available at suitable times. Still, they had elected not to be involved. The crucial factor in their decision lay in how they defined the situation. For example if an individual's attitude was contrary to the pursuance of physical activity, the opportunities available would not be relevant to him.

Within the study population, three individuals exemplified this (N3, N10, N30); all worked within a short walk from ideal facilities, all were at a level of management where they could control their own working hours, all were surrounded by individuals who participated enthusiastically and yet they themselves did not participate. When the question of their participation was raised during the interview they were surprised and amused. The idea had never been taken seriously by them. It was completely outside of their adult experience. N30 referred to regular exercisers as "having a fetish". While N10 adopted a condescending tone when referring to "those who have to go over there (to the Physical Education Centre) to get exercise". Both these individuals placed a negative connotation on exercise for its own sake. Their specific definition of the situation was unclear. Suffice it to say that it was unques-

tionably negative. Thus while the opportunities for participation were ideal, they were not relevant in the minds of these men.

Availability Affected by Perceptions of Instrumentality

Similarly, if an individual does not perceive exercise as instrumental to his goals, the availability of the opportunities to participate are without relevance to him. This was the case with subjects N5, N6, N10, N26. Again, their conditions of work were quite permissive of day time sport and physical activity participation. However, each subject was convinced that he got enough exercise in his daily round. Two were quite direct in disavowing their need for exercise. Subject N26 laughed off the idea saying "No, I don't need that." Subject N5 observed, "I can work the ass off most guys who do that 5BX stuff." as proof of his work capability, and by implication his physical fitness. For these men the opportunity to participate was meaningless because they could not see it being instrumental of anything useful to them.

Availability Affected by Self-Image

If the individual has a concept of people who exercise that is not congruent with his own self-image, he will not perceive opportunities to participate in sport and physical activity as relevant to him. In fact he likely will be quite negative to the idea of participation. This was

exemplified by subjects N9, N15 and N24 who described themselves as quiet, deliberate persons. Their recreations were entirely quiet or sedentary. As a group they were cerebral, reflective men with very little background in sport and physical activity. They did not participate actively in spectator sport. They vocalized a dislike for competitive activities and tended to equate physical activity with competition. On the basis of this empirical observation it is easy to speculate that they neither had self-concepts which were of a sporting nature nor attitudes which would lead them to participate actively in sport and physical activity. Since they did not conceive of themselves as physically active, the opportunity to be active which was readily available to them, was irrelevant. In practical terms it was unavailable.

Opportunity for Participation

Assuming that physical fitness is attractive to the individual and that sports or physical exercise is perceived as instrumental to this goal, there remains the problem of availability of the opportunities to become involved.

Opportunity to participate was an important feature in the involvement of the active men in this study. For them, availability of facilities was influenced by the general appearance of the building that housed the program and the condition of the facilities. Most important was the perception by these individuals of the other participants there.

They were concerned about how they would fit in with this particular set of individuals in these facilities. The introductory phase of their involvement was marked by realistic goal setting, the presence of men of their own age and condition, and avoidance of competition. Their own previous experience and the encouragement of other group members was helpful in transcending the introductory phase.

This was particularly notable in the cases of P12 who at fifty-six resumed an exercise regimen. He reported that during his early involvement he was careful to work at his own pace and to set goals for himself which he felt sure were within his capacity. P 13 took great care to avoid competing. He attempted to run co-operatively with others and avoided racing with aggressive runners. He stated that his job (Sales Executive) was full of competition. His object was tension release through the running until he was "beautifully tired".

Failure to operate as P12 did in setting his own performance goals was instrumental in the drop-out of N3 from hockey. A rough, aggressive player in his Junior days, this subject returned to play intra-murally at the university in his late twenties. He found that he was unable to play himself back into condition and that lacking the basic fitness, he was unable to sustain his youthful playing style. He became disenchanted with the game conceding that he was too old to play.

Such mundane matters as the availability of parking for a car was a decisive factor in determining if an individual would start. Fieldhouse participants mentioned the parking feature as important in their decision to get started. Many of them worked within a short drive of the Y.M.C.A. but the bother and inconvenience of traffic congestion and parking was instrumental in their long postponement. The Fieldhouse, with its huge parking lot was instantly attractive to them. The Y.M.C.A.'s location in the centre of the down town business community made a brisk walk to the workout feasible for many and eliminated the parking problem. For many of these subjects the Y.M.C.A. was ideal.

Accessibility of facilities is undoubtedly the single-most decisive factor in the utilization of physical fitness services. The early evaluation in the buying decision, turns on the ease and accessibility of these services. At the start too many "outs" exist for the potential consumer. If the plan for his involvement is not reasonably convenient and efficient he will not start. Subjects P15 and P12 illustrated the point. Both men had been concerned about their exercise needs a number of years before starting to exercise. P12 had attempted to exercise alone at home but found the circumstances boring. Both stated that they did not attempt to use the Y.M.C.A. due to the parking problems and the cost involved. On the opening of the Fieldhouse which was about the same driving distance

away they were able to become involved due to the improved convenience and accessibility.

The same was true of P5 who had wanted to do something for a number of years. A change of office location to one that was within walking distance of the Y.M.C.A. improved the accessibility, thus creating for him the opportunity.

These circumstances are typical of many of the participant group. It is notable that the reverse was not always true. Having once established the daily exercise pattern, a lowering of accessibility or convenience did not necessarily curtail participation. Examples of this were seen in P11 who started in the Fieldhouse and after three years of regular participation moved into office quarters miles away. An office car pool was organized and his daily routine was changed to include the necessary travel time. P17, a life-long participant, had changed job locations a number of times in recent years. He continued to participate regardless of minor transportation or parking difficulties. It would appear that once a satisfying participation cycle is set in motion the positive reinforcements derived from it more than compensate any new inconvenience.

Attitude Predispositions

Attitudes to participation in sport and physical activity varied across both groups. As would be expected, those who were physically active retained mainly positive attitudes to their participation in sport and physical activity. It would be expected that the opposite would be true also. This proved to be the case in only forty-four per cent of the non-participant group. The majority of the non-participants retained positive attitudes to sport and physical activity participation inspite of their own non-involvement.

It should be remembered that the designation non-participant has been operationally defined for the convenience of this research. The subjects who have been so classified retained a participation level which satisfied their needs. Thus it was not participation as such which had the attitudinal connotation for these subjects. Rather, it was the degree to which an individual participated and the kind of activities which occupied him, that evoked the specific attitudes.

The Non-Participants in Sport and Physical Activity

A general typology of the non-participant in sport and physical activity would be a useful tool in describing the characteristics of this group. Some general characteristics were evident. The non-participant was characterized

by his assignment of a position of low importance to physical fitness in his life activities.

Physical fitness was considered to be less important than six other factors including his children, marriage, job, recreations, social life and the improvement of his property. The non-active men's perception of their own health was lower than the active men. Similarly, they perceived themselves as being less active in their daily round while the active men perceived themselves as being very active.

This was supported by the activity choices of the two groups which were significantly different. The participant men chose more activities in the very active range while the non-active men made more quiet and sedentary activity choices.

The general attitudes of the non-participant men fell into five general categories which were not mutually exclusive. In many instances an individual subject retained attitudes common to two or more categories. A brief description of these follows.

The general attitudes of the non-participant men fell into five general categories. These were not mutually exclusive. In many instances an individual subject retained attitudes common to two or more categories. Nevertheless, from this data it was possible to develop the beginnings of several rough typologies. A description of these follows.

The Moderate Man

Many of the non-participants described themselves as ruled by moderation. They were sincere in their belief that nothing should be done to excess. Excessive striving after physical achievement was just as suspect in their minds as gluttony. To them the moderate man admits to no enthusiasms beyond an enjoyment of the gracious life. To strive or struggle openly for anything was the mark of gaucheness and immaturity. To express a concern for health or physical fitness which exceeded their moderate level was to have a fetish. Lack of real understanding of the principles of conditioning or unsatisfying past experiences seemed to be the foundation of this set of attitudes.

Implications:--Efforts to involve individuals of this type in physical activity must be directed at two aspects of the attitude basis. Physical activity must be presented as a socially acceptable means of health maintenance. It must be made to appear smart, an "in" thing to do. Since many of this group tend to be very socially active, physical activities with a social quality should prove to be attractive. Efforts should be directed at informing how much exercise is necessary. The dangers of being immoderately moderate should be suggested, if not directly pointed out. Efforts to teach or preach to this group should be avoided. The message should be urbanely presented, understated and on an intellectual level.

The Work-Oriented Man

A dominant attitudinal theme heard in the non-participant interviews was a need to produce some useful product or effect from physical effort. The work-oriented man included in his daily round a variety of practical activities such as raising livestock, improving a summer cottage, maintaining a farm or acreage or working on his home and property. Aspects of the protestant work ethic were evident in this attitudinal classification. These individuals were suspicious or uneasy about exercise for its own value. They would not train to be in a sport, choosing to play themselves into condition. Thus they found themselves no longer able to pursue activities they had learned as a young person because they were not fit enough. Their sense of the appropriateness of various activities was very strong as were their rationale for their own non-participation. They were mildly contemptuous of individuals who had to exercise to remain fit.

Implications:--To this group, physical activity will always be suspect unless it has a thoroughly practical outcome. Presenting sport as a means of getting fit is likely to be ineffective with this group. Since respect for hard work and for maintenance of property and equipment ranks high in the value system of the group, this appears to be a means of influence. Efforts directed at suggesting that maintenance of the body is a moral duty would appear to hit both the

pragmatic outlook of these individuals while touching the ethical-religious aspect of their attitudes. If this can be tied to a message which reinforces work as a desirable means to obtain graded exercise, an improvement in general fitness by this group is likely. In order to facilitate this approach, measurement of common work activities for caloric energy cost and establishment of daily workloads for fitness maintenance is needed. The Work-Oriented Man might well be encouraged to seek forty minutes a day of heavy labour to an optimum pulse-rate level. Education as to the process of de-conditioning is necessary so that an understanding of the need to push the body is understood.

The Conservationist

The conservance incentive was evident within the non-participant group. With these individuals it took the form of avoidance of all unnecessary effort. The conservationist avoided straining themselves at all costs. They were largely resistive to circumstances which forced effort upon them. They tended to rate themselves as being low active and were more negatively disposed to activity than others in the non-participant sample. Their maxim was, "I don't need exercise, I need rest." Escape from tension and life pressures seemed to dominate their recreational past-times. They tended to indulge themselves and to seek relief through resting and alcohol.

Implications:--Since the whole concept of exercise for health maintenance or recreation is not acceptable to this group, efforts to induce participation must be directed along paths which have some possibility of success. These would seem to be those which offer relief from tension and for quietness. Activities which are of a quiet nature such as walking or light cycling can be made to appear as an escape from the hurly-burly of daily life. Since the Conservationist pattern is likely to occur among older people, this approach appears to direct action along present attitudinal lines. The inducement to participate in walking or cycling must feature the enjoyment and pleasure of the out-of-doors and play down the exercise aspect. An approach like, "Take a vacation today - Go for a walk. Nature is beautiful up close." are typical of the kind of messages envisaged.

Coupled with scenic routes, highlights, beauty spots, mileage or time enroute markings, make the promotion of walking a likely means of involving the Conservationist. Always the pleasure of the experience must be highlighted.

The Family Man

The individuals in this category uniformly rated the needs of their wives and children ahead of their own social and recreational needs. They tended to pursue recreational activities with their parents or in-laws. Many travelled each week-end to the family farm where they worked with other members of their family and with their children. Traditional

rural recreations were typical amongst them. Horseback riding, the occasional softball game, curling, a Saturday night dance or a trip to the beer parlour were frequent recreations. In town during the week, efforts were made to ensure the children got to dancing, music, or swimming lessons. They occasionally socialized through a club or community league, but tended to confine their recreations and social life to interactions with family. Many of this group were also classified with the Work-Oriented Man. Like this other group they were also bound by a strong sense of duty. They expressed considerable concern about absenting themselves from their children for any reason.

Implications:--Any program aimed at the involvement of the Family Man must take into account the needs of the whole family. This would imply activities graded so as to involve a wide range of age, to have a focus on joint action, to require a low skill level or a variety of skill levels, to be largely co-operative and be experience- rather than content- or task-oriented. Above all they should not bring family members into competition with each other or family with family. Activities that can be done at home using equipment common in the home should be designed.

The route of influence to the Family Man is through his wife and children. The school, through its contact with children, should be used to encourage children to involve their parents in the joint program. Just as children control the

the purchase of breakfast cereals so they can influence parents in other directions. Persuasion campaigns directed at children are seen as effective ways of reaching the parents.

The wife also has a controlling influence on the schedulling of and the kinds of activities followed by her family. The most susceptible member of the family is usually the wife who very early becomes concerned with food, weight and figure control. Information directed at the woman as a controller of the family activity program is another potent source of influence.

Finally, the Family Man himself is also susceptible to influence from the information media. Most of this class of individuals were themselves positively disposed to sport and physical activity so the problem of attitude change is not a serious factor. Information directed at this group should present sport and physical activity as something still followed by many men of their age. Activity should be seen as having practical outcomes. The aspect of duty should be contained within the responsibility to the family. Typical statements are, "Get active - your kids love to play with you." Illustrations of father keeping up or leading his children in games and play should capitalize on the conservance-competence incentive. "Lot's of drive in the old guy, yet," is an effective catch-line; or from an admiring child, "Gee dad, you're great!" Activity should be seen as solidifying family ties and providing a medium of mutual enjoyment.

The Busy Man

This classification includes those who found their time too fully occupied to be able to fit in an exercise regimen. The Busy Man category often included those from the Work-Oriented Man category. These individuals derived great satisfaction and fulfillment from their job performance. They were disapproving of the physically active individual and indicated this through a faint endorsement of their activities. As a group they were single-minded, hard-working persons who grudgingly gave time for the interview. They acknowledge no special exercise need suggesting that they obtained enough exercise from their daily round. All sought to escape from their job pressure through quiet recreations.

Implications:--Since many of these individuals were satisfied that their exercise needs were met through their daily round, efforts to move them towards an activity regimen seemed likely to fail. A feature of their recreational pattern was an escape from the pressure of their job into quiet activities. This seems the most likely means of influence to which they might be susceptible. Presentation of activity as a source of relief from pressure and tension is seen as a strategy likely to be successful. The approach suggested for use with the Conservationist should be effective with the Busy Man too.

The question of convenience and accessibility of facilities, while not a major factor with this group (many of the active participants were very busy indeed), is worthy of consideration. Home exercise programs, convenient neighbourhood exercise centres, jogging trails, cycling paths, swimming pools are more likely to come into use if they are available when needed. Obviously, the more facilities available the more likely is useage to increase.

The Pre-Occupied Man

This category included those individuals who were involved in recreations which did not permit them the necessary time for participation in sport and physical activity. Their selection of activities centred in the quiet range and tended to be social and aesthetic. Intellectual stimulation, good company and interesting activities filled their spare time. They perceived no need for exercise beyond what they obtained from the maintenance of their home and property.

Implications:--Presentation of physical activity as an important part of life, combined with methods of getting exercise that is convenient and stylish, should prove to be the most effective means to influence this group. Since they are unimpressed with athletes and athletics, the sources of exercise should be divorced from the sports scene. The utilitarian aspect of exercise is its selling point. This should be shown to flow naturally into the life of the well

balanced man. The cultured individual cares for himself so he can enjoy life to the full.

Active Participants in Sport and Physical Activity

While all the active participants retained distinctly positive attitudes to their participation, certain qualitative distinctions would be useful in describing the typology of their attitudes.

Institutional Exercisers

By far the largest group among the participants were those whose incentive and enjoyment was derived from the camaraderie of the locker room. All these men were institutional exercisers in that they travelled to a set location, changed into their workout clothing, participated, and after a shower, returned to their work or went home. They tended to form acquaintanceships with many of the group who attended with them. These social interactions were, in the main, of a casual nature. Nevertheless they proved to be an important feature of the institutional setting. Many of these individuals reported that they had tried to exercise alone but had found it boring and lacking incentive. The existence of a group towards which they felt a slight loyalty provided enough incentive to move them when their spirits were unwilling. Many of this group described the exercise routine as boring. They were prepared to endure the discomfort and to put up with the boredom as part of the regimen knowing in the long run that they were going to benefit. Most of them recognized that this was a life-long activity which was necessary for their well-being. "It's a life sentence", said

one of them. These regular exercisers were able to relate on a casual friendly level to other exercisers and found in these relationships a source of allegiance and free masonry. The exercise was tiresome and boring but the fellowship was a balm for it.

Solitary Exercisers

Contrasting with the institutional exercisers was a smaller group of individuals who were every bit as enthusiastic if not as social. Some of these subjects attended an institution but after their initial indoctrination they made it a point to operate alone. Their attendance was entirely functional to their exercise needs. They made little attempt to encourage social interaction stating that they were not interested in anything other than getting enough exercise. A number of other solitary exercisers worked out at home or used their home as a base for running or cross-country skiing workout. They were quietly proud of their fitness and tended to be secretive with their co-workers. The primary characteristic of this group was their functional approach to exercise which they had built in to their daily round. One subject summed up the attitude of the group in his statement. "I don't make a big deal out of it, I just get it done quickly and efficiently."

The Competitors

The third group amongst the actives was comprised of men who were still actively competing in their particular

sport. To this group their training had a functional quality in that they were able to maintain a level of physical fitness which enhanced their daily life. Each stated that he enjoyed the competitive aspects of his involvement but this was of equal importance to his feelings of well-being.

Feelings of achievement and self-worth resulting from their participation were expressed by this group. While some tended to take a loss badly, the majority treated each performance as relative to a personal standard. Growing out of their sports competition were a variety of social and sport-political interactions. As men over twenty-five they were older athletes who commanded the respect of their fellows in the sport. Their involvement in their sport represents a commanding interest which had altered their life style substantially.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The purpose of this study was to develop an understanding of the incentives of middle-aged men to be involved or to avoid involvement in sport and physical activity. A sample of fifty middle-class and upper middle-class men were selected judgementally from local physical fitness programs or on the recommendation of informed observers. Three criteria were established for selection; a minimum age of twenty-five, a Canadian educational background, and a history of involvement for at least three years for the active participants or for five years non-involvement for the non-participants.

The research made use of a focused interview plus four questionnaires to obtain and validate the information received. Rating scales were developed to quantify the interview data which was used to construct a set of characteristics for each of the two groups. The persistently active men were found to have a generally favorable previous history in sport and physical activity. They were characterized by continued long-term involvement. Their background pre-disposed them to perceive physical activity as an acceptable means through which they could maintain their

health. While health maintenance was the primary incentive for their involvement, the activity was important as a source of relief from the pressures of business and for friendly social interaction. This group perceived themselves to be very active and as having excellent health. As a group they rated the need to get regular exercise as one of the most important aspects of their lives. A high level of physical fitness allowed them to enjoy a variety of other activities apart from their fitness maintenance. In these they found a challenge and a fulfillment of their lives. In short, this sample of physically active men were described as healthy, active, enthusiastic people who derived great satisfaction from their physical ability.

The non-participants in sport and physical activity had generally less positive backgrounds than the active participants. Their attitudes to participation ranged from negative to positive with fifty-six per cent of the group expressing generally positive attitudes. A general misunderstanding about their exercise needs and the role of physical activity in the maintenance of health was observed in this group. A number of attitudinal configurations were identified which were only partly related to previous histories. Many were found to be based on social learning. This group rated almost all areas of life ahead of the need to get regular exercise. As a group their perceptions of their own health rated lower than the active group. Simi-

larly their ratings of their own level of activity was significantly lower.

No difference was found in the secondary sports participation of the two groups. It was thus concluded that this variable was independent of direct participation in sport and physical activity.

BIBLIOGRAPHY

Albinson, J.G. "Life Style of Physically Active and Physically Inactive College Males." Unpublished Doctor of Philosophy dissertation, Queen's University, Kingston, Ontario, 1971.

Anderson, O.W., Collette, P. and Feldman, J.J. Changes in Family Medical Care Expenditures and Voluntary Health Insurance: A Five Year Resurvey. Cambridge: Harvard University Press, 1963.

Baily, J.A. "Recreation and the Aging Process," Research Quarterly, 26:1, 1-7, March 1955.

Barnhill, J.A. "Leisure Activity Attitudes and Values and an Analysis of An Innovation of Volleyball Conducted in the Greater Vancouver Metropolitan Area," Research Report to National Fitness Council of Canada. Simon Fraser University, Burnaby, B.C., 1968, p. 3.

Behrman, R.M. "Personality Differences Between Swimmers and Non-Swimmers," Research Quarterly, 38:167-71, 1967.

Bell, M., Walters, E. and Staff. "Attitudes of Women at the University of Michigan Towards Physical Education," Research Quarterly, 24:379-385, December, 1953.

Biddulph, L.G. "Athletic Achievement and the Personal and Social Adjustment of High School Boys," Research Quarterly, 25:1-7, 1954.

Birch, David and Joseph Veroff. Motivation: A Study of Action. Brooks/Cole Publishing Co., Belmont, California, U.S.A., 1966.

Blanchard, B.E. "A Comparative Analysis of Secondary School Boys' and Girls' Character and Personality Traits in Physical Education Classes," Research Quarterly, 17: 33-39, 1946.

Blishen, B.R. "A Socio-Economic Index for Occupations in Canada," Canadian Review of Sociology and Anthropology, 4:41-53, 1967.

Booth, E.G. Jr. "Personality Traits of Athletes as Measured by the Minnesota Multiphasic Personality Inventory," (M.M.P.I.), Research Quarterly, 29:2, 1958.

Brumbach, Wayne B. and Cross, John A. "Attitudes Towards Physical Education of Male Students Entering the University of Oregon," Research Quarterly, 36:10:5, 1965.

Brunner, R.M. "Personality Differences Between Non-Swimmers and Swimmers," Research Quarterly, 38:2, 1966.

Buhler, Charlotte. "Maturation and Motivation," Personality, 1:184-211, 1951.

Casaday, D.B. "The Effect of Lectures Presented in a Required Physical Education Program," Microcarded Doctoral dissertation, State University of Iowa, 1959.

Clark, H.H. and Clarke, D.H. "Relationship Between Levels of Aspiration and Selected Physical Factors of Boys Aged Nine Years," Research Quarterly, 32:12-19, 1961.

Clark, Alfred C. "The Use of Leisure and Its Relation to Levels of Occupational Prestige," American Sociological Review, 21:301-307, June, 1956.

Cofert, C.N. and Johnson, W.R. "Personality Dynamics in Relation to Exercise and Sports," In W.R. Johnson (Ed.) Science and Medicine of Exercise and Sports. New York: Harper and Row, Publishers, 1960.

Cox, Keith K. The Marketing Research Process. Pacific Palisades: Goodyear Publishing Co. Inc., 1972, pp. 263-64.

Cronbach, L.J. and Meehl, P.E. "Construct Validity in Psychological Tests," Psychological Bulletin, 52:281-302, 1955.

Cross, J.A. "Attitude Towards Physical Education of Male Students Entering the University of Oregon," Unpublished Master's Thesis, The University of Oregon, 1954.

Festinger, L. "A Theory of Social Comparison Processes," Human Relations, 7:117-190, 1954.

Fiske, D.W. and Maddi, S.R. Functions of Varied Experience. Homewood Ill: The Dorsey Press, Inc., 1961, pp. 17-56.

George, F.W. "A Survey of Attitudes of Selected Male Students Towards Physical Education and Recreational Activities at the University of Oregon," Unpublished Master of Science Thesis, University of Oregon, 1958.

Gerard, H.B. and Rabbie, J.M. "Fear and Social Comparison," Journal of Abnormal Social Psychology, 62:586-592, 1961

Goldstein, K. The Organism. New York: American Book, 1939.

Hardy, Martha C. "The Out of School Activities of Well Adjusted and Poorly Adjusted Elementary School Pupils," Journal of Educational Psychology, 26:455-67, 1935.

Harris, Dorothy V. "Physical Activity Attitudes of Middle-Age Males," In: Contemporary Psychology of Sport. Proceedings of the Second International Congress of Sports Sociology, Ed., G.S. Kenyon. Washington, D.C.: The Athletic Institute, 1968, pp. 419-22.

Havighurst, R.J. "Leisure Activities of the Middle-Aged," The American Journal of Sociology, 64:386-404, 1959.

Hendrick, I. "Discussion of the Instinct to Master," Psychoanalytic Quarterly, 12:561-65, 1943.

Howell, M.L., Anderson, R.O. and Culutson, M. "Personality and Motor Abilities," In: Proceedings of Sports. Rome, Italy, 1965.

Jones, H.F. "Physical Ability as a Factor in Social Adjustment in Adolescence," Journal of Educational Research, 40:4, 1946.

Kappes, Eveline E. "Inventory to Determine Attitudes of College Women Towards Physical Education and Student Services of the Physical Education Department," Research Quarterly, 25:429-436, December, 1954.

Kenyon, G.S. "Attitude Toward Sport and Physical Activity Among Adolescents from Four English Speaking Countries," The Cross Cultural Analysis of Sport and Games. Edited by Gunter Luschen, Champaign, Ill: Stipes Publishing Co., 1970.

Keogh, J. "Extreme Attitudes Towards Physical Education," Research Quarterly, 34:27-33, March, 1963.

Kerlinger, F.N. Foundations of Behavioral Research, Toronto: Holt, Reinhart and Winston, Inc., 1964, p. 467.

Koocher, G.P. "Swimming Competence and Personality Change," Journal of Personality and Social Psychology, 18:275-78, 1971.

Kretch, D., Crutchfield, R.S., Ballachey, E.L. Individual in Society. New York: McGraw Hill, 1962.

Layman, Emma M. "Contributions of Exercise and Sports to Mental Health and Social Adjustment," in Science and Medicine of Exercise and Sports. Ed. W.R. Johnson, New York: Harper and Row, Publishers, 1960, p. 574.

Lewin, K. "Psychology of Success and Failure," Occupations, 14:926-930, 1936.

Lewin, K., et al. "Levels of Aspiration," In J. Hunt (Ed.) Personality and the Behavior Disorders, Vol I. New York: Ronald Press, 1944.

Luschen, G. "Social Stratification and Social Mobility Among Young Sportsmen," In J.W. Lay Jr., and G.S. Kenyon, eds., Sport Culture and Society. London: McMillan Ltd., 1969, pp. 258-276.

MacIver, R. Social Causation. Boston, Mass: Ginn and Co., 1942.

Maslow, A.H. "A Theory of Human Motivation," Psychological Review, 50:370-396, 1943.

Maslow, A.H. Motivation and Personality. New York: Harper, 1954, p. 200.

McNeil, Elton B. Human Socialization. Belmont: Brooks and Cole Publishing Co., 1969.

Meade, G.H. Mind, Self and Society. Chicago, University of Chicago Press, 1934.

Merton, R.K., Fiske, M., Kendall, P.L. The Focused Interview: A Manual of Problems and Procedures. Glencoe, Illinois: The Free Press, 1956, p. 5.

Milverton, F.J. "An Experimental Investigation Into the Effects of Physical Training on Personality," British Journal of Educational Psychology, 13:30-38, 1943.

Mista, Nancy J. "Attitudes of College Women Toward Their High School Physical Education Program," Research Quarterly, 39:116-74, March, 1968.

Murray, H.A. Explorations in Personality. New York and London: Oxford University Press, 1938, p. 164.

Neal, D.V., Sostroem, J. and Metz, E. " Self-Esteem and Attitudes of Adolescent Boys," Research Quarterly, 40:743.

Nelson, G.A. "Personality and Attitude Difference Associated With the Elective Substitution of R.O.T.C. for the Physical Education Requirement in High School," Research Quarterly, 19:1-17, May, 1948.

Nissen, H.W. "The Nature of the Drive as Inate Determinant of Behavioral Organization," In M.R. Jones (Ed.) Nebraska Symposium on Motivation. Lincoln Nebraska: University of Nebraska Press, 1954, pp. 281-321.

Orlick, T.D. "A Socio-Psychological Analysis of Early Sports Participation," Unpublished Doctor of Philosophy dissertation, University of Alberta, Edmonton, 1972.

Participaction. A Pamphlet Published by Participaction Inc. Toronto, Ontario, 1972.

Passmore, R., and Durnin, J.V.G.A. "Human Energy Expenditure," Physiological Review, 35:801, 1955.

Pressy, S.L. and Kuhlen, R.G. Psychological Development Through the Life Span. New York: Harper and Row Publishers, 1957, p. 427.

Raab, W.A. and Kraus, H. Hypokinetic Disease. Springfield: Thomas Publishing Co., 1961.

Rarick, G.L. and McKee, R. "A Study of Twenty Third-Grade Children Exhibiting Extreme Levels of Achievement on Tests of Motor Proficiency," Research Quarterly, 20:142-152, 1949.

Rogers, C. Client Centred Therapy. Boston: Houghton Mifflin Co., 1951.

Rutledge, L. "Aspiration Levels of Deaf Children as Compared With Those of Hearing Children," Journal of Speech Hearing, 19:375-380, 1954.

Schacter, S. The Psychology of Affiliation. Stanford: Stanford University Press, 1959.

Schiltz, J.H. and Levitt, S. "Levels of Aspiration of High and Low-Skilled Boys," Research Quarterly, 39:696-701.

Schwarz, K. "Health Education and Health Hazards in Middle-Aged Men," Health Education Journal, 27:18-21, 1968.

Semotiuk, Darwin. "Attitudes Towards and Interests In Physical Activity of Edmonton Secondary School Students," Unpublished Master's Thesis, University of Alberta, Edmonton, 1967.

Siegel, S. Nonparametric Statistics for the Behavioral Sciences. Toronto: McGraw-Hill Book Co., Inc., 1956.

Sills, F.D. and Mitchem, J. "Prediction of Performance on Physical Fitness Tests by Means of Somatotype Rating," Research Quarterly, 28:64-71, 1957.

Singer, J.E. and Shockley, V.L. "Ability and Affiliation," Journal of Personality and Social Psychology, 1:95-100, 1965.

Sluiter, F.V. "The Attitudes of Men Students Towards the Required Physical Education Programme at South Dakota State College," Unpublished Master of Science Thesis, South Dakota State College, 1959.

Slusher, H.S. "Personality and Intelligence Characteristics of Selected High School Athletes and Non-Athletes," Research Quarterly, 35:539-45, 1964.

Smith, C.H. "Influence of Athletic Success and Failure on the Level of Aspiration," Research Quarterly, 20:196-208, 1949.

Sofranko, A.J. and Nolan, Mitchell F. "Early Life Experiences and Adult Sports Participation," Journal of Leisure Research, 4 (winter), 1972, pp. 6-18.

Squires, J.Y. "Factors Influencing Attitudes of High School Senior Boys Towards Physical Education," Doctor of Physical Education dissertation, Springfield College, 1956.

Statistics Canada. "Survey of Selected Leisure Time Activities," Service Bulletin, Education Division, 2:1, 1972.

Stiles, M,H. "Motivation for Sports Participation in the Community," Canadian Medical Association Journal, 96: March 25, 1967.

Technical Recommendations for Psychological Tests and Diagnostic Techniques. Psychological Bulletin Supplement, 1954, 51, 2 part 2, 1-38.

Tilman, K. "Relationship Between Physical Fitness and Selected Personality Traits," Research Quarterly, 36: 1965.

Thomas, A., Chess, S. and Birch, H.G. "The Origin of Personality," Scientific American, 102-109, August, 1970.

Torgerson, W.S. Theory and Methods of Scaling. New York: John Wiley and Sons, Inc., 1958, pp. 166-68.

Trudeau, P.E. A Speech reported at Jubilee Auditorium, Edmonton, Alberta, September, 1972.

Werner, A.C. "Physical Education and the Development of Leadership Characteristics of Cadets at the United States Military Academy," in "Physical Activity and Cardiovascular Health," Howell, M.L., and Alberman, R.B. Canadian Medical Association Journal, 96:721-26, March, 1967.

White, R.W. Lives in Progress, New York: The Dryden Press, 1953, p. 94.

White, R.W. "Motivation Reconsidered: The Concept of Competence," In: Fish, D.W. and Maddi, S.R. Functions of Varied Experience. Homewood, Illinois: Dorsey Press, 1961, p. 278.

Whiting, H.T.A. "Teaching the Persistent Non-Swimmer: A Scientific Approach," G. Bell and Son, 1970.

Williamson, Robert C. Marriage and Family Relations. New York: John Wiley and Sons, Inc., 1966.

Willgoose, C.E. and Rogers, M.R. "Relationship of Somatotype to Physical Fitness," Journal of Health, Physical Education and Recreation, September, 1956.

Wilson, B.H. "Junior High School Boys' Attitudes Towards Physical Education As Related to Fathers and Peer Group," Unpublished Master of Arts Thesis, University of Alberta, Edmonton, 1972.

Van Dalen, D.B. and Meyer, W.J. Understanding Educational Research. Toronto: McGraw-Hill Inc., 1962, p. 315.

APPENDIX A

CORRESPONDENCE WITH SUBJECTS

FACULTY OF PHYSICAL EDUCATION
THE UNIVERSITY OF ALBERTA
EDMONTON, ALBERTA, CANADA T6G 2H9

DEPARTMENT OF PHYSICAL EDUCATION

Date

Name
Address
Edmonton, Alberta

Dear Sir

I am writing concerning a project I am undertaking through the University of Alberta. It involves a study of adults who have been persistently active in physical activities. From this study we hope to discover aspects of the activity which lend it an appeal. And, hopefully something about the participants from which we can induce the public to be more physically active.

Your involvement as an active person at the Y.M.C.A. has singled you out as an ideal subject for this study. It will be conducted over the next two months. Your involvement would be limited to about a sixty minute interview and questionnaire. All information obtained would be confidential and reduced to computer data so that your anonymity would be preserved. I will be phoning you in the next week to obtain an appointment if you will consent.

Your co-operation in this project will aid in our understanding of people's involvement. It is widely believed that most Canadians are not active enough. This study will give us some understanding of the vigorous minority in hopes that we can learn what is needed to motivate inert majority.

I hope you will feel free to help us.

Sincerely yours

Arthur C. Burgess
Graduate Student
University of Alberta

ACB:dj

FACULTY OF PHYSICAL EDUCATION
THE UNIVERSITY OF ALBERTA
EDMONTON, ALBERTA, CANADA T6G 2H9

DEPARTMENT OF PHYSICAL EDUCATION

Date

Name
Address
Edmonton, Alberta

Dear Sir

I am writing concerning a research project we are conducting through the Department of Graduate Studies at the University of Alberta. This is a descriptive study of the recreational and leisure time activities of men over age twenty-five who were educated in Canada.

We would very much like to include you as a subject in this research. Your involvement would be about one hour of your time in which you would be interviewed by one of our research team.

The information obtained would be reduced to computer data so that your anonymity would be preserved.

We would be prepared to meet you at your office or anywhere convenient to you and would like to do this before the end of June. I will phone later this week to see if you are prepared to participate in our study.

Most cordially yours

A.C. Burgess
Graduate Student
University of Alberta

ACB:dj

APPENDIX B

GENERAL INFORMATION INVENTORY

General Information

Your age _____ Occupation _____

Marital Status _____

Education:

Post Graduate Degree | University Graduate | Technical College | High School Graduate | Number of Years of Jr. High School or Elementary School

Was your pre-university education in a Canadian Public School - American School - Other?

Father's Occupation _____ Mother's Occupation _____

Number of Brothers and Sisters _____

Your place in the order of children in your family _____

Do you regularly walk to work or on small errands? Yes ___ No___

Do you ride a bicycle?
to work/daily for exercise/on weekends/occasionally/don't have one

Do you drive a car?
to work/on weekends/not at all

Do you own any of the following items of equipment that you use for recreation?:

Sailboat - Snowmobile - Motor Bike - Power Boat - Trail Bike (motor) - Dune Buggy

Power Tools - Woodworking Tools - Metalworking Tools - Rock Polishing Equipment - Sculpturing - Gardening Tools - Decoration Equipment

Fishing Tackle - Rifle - Shot Gun - Camping Equipment - Cross country Skis

Badminton Racquet - Tennis Racquet - Squash Racquet - Paddleball Racquet - Handball Gloves

Oil Paints - Camera - Wine/Beer-making Equipment - Theatrical Costumes - Musical Instruments - Sculpting Tools

Ham Radio Equipment - Stereo Equipment - Recording Equipment - Phonograph Records - Black and White T.V. - Colour T.V.

Skates - Skis - Snowshoes - Jogging Shoes - Golf Clubs - Bicycle

S.C.U.B.A. Equipment - Skin Diving Equipment - Swim Fins and/or Mask - Home Swimming Pool - Bathing Suit - Water Skis

Model Railroad - Model Airplane - Model Ships - Model Cars - Tropical Fish - Pet Animals - House Plants

Parachute - Aeroplane - Glider/Sailplane - Manned Kite

Hockey Equipment - Football Equipment - Basketball - Volleyball - Soccer Ball - Baseball - Softball

Playing Cards - Personal Library - Table Games - Slide Projector - Motion Picture Projector

To what level are you socially active?
most active/very active/active/ moderately active/active

How do you describe yourself as to level of activity?
very active/quite active/active/deliberate/quiet

How do you rate your own health?
excellent/good/average/below average/poor

APPENDIX C

FOCUSED INTERVIEW PARTICIPANT

Focused Interview Participant

Childhood Sport and Physical Activity Environment

A1 As a child, in what kind of activities did you participate for fun and recreation?

1. Played no sports at any time. Was prevented from all kinds of physical recreation through illness, family attitudes, poverty, etc.
2. Played sports only in required physical education classes. Not active at all in physical recreation. Occasionally took part in non-structured physical activities such as hiking, hunting and fishing.
3. Played sports recreationally when opportunity presented. Not a sport's leader. Not regularly active in physical recreation. Took part in non-structured activities such as hiking, hunting and fishing fairly often (more than two less than four).
4. Played intra-mural sports at school. Regularly enjoyed physical recreation. Participated regularly in non-structured activities such as hunting, fishing or hiking.
5. Played school or recreational league sports. Participated actively in many kinds of physical recreation and outdoor activities.

A2 Did your family participate in activities with you?

1. Participation was without involvement of other family members.
2. Siblings only participated.
3. Older siblings or age-peer relative - without parental involvement.
4. One parent or near relative or adult sibling.
5. Both parents and siblings.

A2 i Inference - Indications of family attitude to child's participation may be inferred from the interview data:

1. Absolutely negative.
2. Conditionally negative.

3. Neutral.

4. Permissive.

5. Enthusiastic.

A3 As a teen-ager and young person, what sort of things did you do for fun or recreation?

1. Played no sports at any time. Was prevented from all kinds of physical recreation through illness, family attitudes, poverty, etc.

2. Played sports only in required physical education classes. Not active at all in physical recreation. Occasionally took part in non-structured physical activities such as hiking, hunting and fishing.

3. Played sports recreationally when opportunity presented. Not a sport's leader. Not regularly active in physical recreation. Took part in non-structured activities such as hiking, hunting and fishing fairly often (more than two less than four).

4. Played intra-mural sports at school. Regularly enjoyed physical recreation. Participated regularly in non-structured activities such as hunting, fishing or hiking.

5. Played school or recreational league sports. Participated actively in many kinds of physical recreation and outdoor activities.

A4 Could you describe your parent's recreation during your childhood? During your teen-age and young adulthood?

1. Parents not at home. Parents too busy working. Religious, physical or social prohibition to any form of recreation.

2. Parents have no regular hobbies. Recreation is passive. Listen to radio; read paper; talk; go for drive in car; rarely go out of doors for recreation.

3. Parents have a quiet recreational life with regular hobbies. Listen to radio; read; talk; "just sit"; occasionally have friends in. Activities usually of a quiet social inter-action type. Occasionally attend sport's events as a spectator. Occasionally hunts or fishes.

4. Parents active socially - entertain; dance; play cards; curl; or bowl. Play golf/badminton occasionally. No firm commitment to a sport or recreation but enjoy it when opportunities presented. Recreations largely of a social character. Attend sport's functions as spectator. Regularly hunted or fished.

5. One or both parents very active in sports and physical activity. Played on teams. Attended physical recreation facilities often for own participation. An enthusiastic regular participant. An active sport's booster - season-ticket holder. Went hunting or fishing very frequently. Impatient for opening of the season.

A5 Were your parents active in sport and physical activity during their youth? In what activities?

1. Don't know.
2. Passive.
3. Active.
4. Very Active.
5. Extremely active.

A6 How would you rate the importance of sport and physical activity among the recreational activities of your family? (make comparisons) Attempt to help define "Importance" level.

1. Of no importance.
2. Of little importance.
3. Of some importance.
4. Considerable importance.
5. Very important.

A7 In looking back on your school physical education experiences, how would you rate their importance in helping you to keep physically active?

1. Of no importance.
2. Of little importance.

3. Of some importance.

4. Considerable importance.

5. Most important.

A8 Were there people outside of your family who influenced your involvement in sport and physical activity? Who, when, how?

A9 Were there any groups or clubs through which you became involved in sport and physical activity?

Activity Involvement History

B1 How did you get started?

1.	Started by Peers	Friend(s) invited me to participate and introduced me to it by: loaning equipment, enthusiastically demonstrating, actively working at involving me, constantly invited to join.
2.	Supported Self-starter	A number of friends and acquaintances involved in it. Seemed like an "in" thing to do. I asked friends about it. They directed me into the activity.
3.	Self-starter	Watched the activity or attended one of the functions, found it interesting and got started. Felt the need to do something so looked into it and found it interesting and easy to identify with.
4.	Former participant resuming	Had once been active and felt I was missing something being away - needed exercise, wanted to get back to it, missed the fun, excitement, friends, life style.
5.	Interrupted active participant	Wanted to resume after a short interval of dislocation due to feeling the need to "get with it" again. I missed the participation.

Instructions to Rater:

B1 i Note special circumstances of involvement history below. Subjects who have never quit, i.e. have been active all their lives should be included below.

B2 Do you recall what first led you to this activity?

1. External factors such as advertising or coverage in the news media. The knowledge that a lot of "nice" people participated in it. The activity was seen as "in" socially. Individual attempted to meet social norms, follow fad, etc.

2. Activity was seen first hand as intriguing, having attractive features of dress, facilities, or life style associated with it. Individual drawn through neighbours or acquaintances.

3. Friends or associates disclosed desirable features. These included some social attractions but important

features were the chance to improve or maintain health and new opportunities for recreation.

4. Family-directed attention to activity because they saw the subject needed the activity for health and well-being. Individual responded to suggestion through his own felt needs for the activity.

5. Personal factors - the activity was seen as desirable for its own sake which was primarily to provide exercise or recreation. Individual sought out activity in response to felt needs for activity as such.

Instructions to Rater:

This question seeks to identify sources of motivation to participate. The answer categories are arrayed on a continuum from external "other directed" motives to internal "inner directed" motives. Each answer category contains factors of (a) other people's influence and (b) features of the activity. Both need not be included to score in a category. In the event that two categories are indicated circle both and note.

B3 Were there any difficulties in getting started? (Suggest time, equipment, cost, personal factors)

1.	None at all Satisfaction from the start	Enjoyed first few outings fully. Friends accompanied subject or he quickly made acquaintance with new people connected with the activity. Easily learned enough skill to participate for fun's sake.
2.	Minor inconvenience or difficulty	First few exposures were satisfying but lacked enjoyment due to unfamiliarity with location of activity, absence of many friendly people. Limited skills prevented full enjoyment. Learning was more difficult than expected. Fatigue limited participation.
3.	A number of small difficulties	First few exposures were marred by a number of small problems, e.g., inadequate equipment, unpleasant surroundings, unfamiliarity, apathetic instructors and fellow participants. Inadequate skills or fitness level limited enjoyment. Muscle soreness or minor injury prevented as full participation as had been hoped.

4.	Some problems, inconveniences and discomforts	First few sessions created some frustration. Poor conditions, unsuitable equipment, lack of knowledge, inadequate instructors and unsympathetic fellow participants made early exposure unsatisfying. Low fitness, lack of skills left individual discouraged and frustrated.
5.	Yes, considerable problems Much inconvenience to start Early experience unpleasant	Early experiences with activity very dissatisfying. Bad conditions, unpleasant people. Poor instruction disgusted the individual. Activity far too strenuous for fitness or skill level. Crippling muscle soreness or injury resulted.

Instructions to Rater:

Assumption is that subject is presently still involved in the activity. Scoring on this question is a rating of motive strength. If the first exposure is less than satisfying, an increased motive strength is indicated. Thus the individual scoring five can be thought to be highly motivated to participate. The same may be true of an individual scoring one. However, they have not had to display this level of motivation. Refer also to question B5 and compare.

These statements are paraphrases of some possible statements. It is impossible to anticipate every kind of verbal reaction so these statement categories have been evolved. Note within each is a factor of (a) initial reaction, (b) intra-personal relations (c) situational variables (d) personal feelings resulting. Any one of these factors appearing clearly in a response will classify it. Should responses range over two or three categories circle the appropriate numbers and attempt to arrive at a general impression which should be indicated on the rating form.

B4 How were these overcome?

Instructions to Rater:

Briefly note any particular attitude to the activity or other situational factors which might give a clue to motivational factors.

B5 What was your first reaction to _____?

Instructions to Rater:

This will allow expansion on question B3. Don't duplicate anything appearing there.

B6 How was it like anything you had done before?

Instructions to Rater:

If not like anything done before write "no similarity". If some carry-over from earlier life or from other activity, briefly note the connection. Be on careful watch for motivational clues.

B7 How often do you participate now compared to at first?

1. Much less than.
2. Less than.
3. As often.
4. More often.
5. Much more often.

B8 Did you make any new friends or acquantances as a result of participation in _____?

Do you know their names? Do you ever see them apart from the activity? Is there any social contact between your respective families. How would you describe these people? acquaintances, friends, close friends?

1. No new friends or acquaintances.
2. A couple of casual recognizable acquaintances who say hello to me (don't know names).
3. A number (three or more) of acquaintances whom I knew by first name and who call me by my first name. We sometimes eat at the same place.
4. A number of friends whom I know by name and who know me by name. We occasionally have social contact involving wives.
5. A number of friends (as in 4.) and a few close friends whom I value. We see each other regularly and socialize.

B9 What has come about as a result of these (new friendships?

Instructions to Rater:

Look for indications of satisfaction with friendship, opportunities for social comparison, recognition or whatever.

B10 Was there any factor that was particularly important in getting you started?

B11 Do you participate in other activities?

Instructions to Rater:

List other sports and physical activities engaged in. Note other attitudinal or motivational indications.

Attitudes and Incentives Towards Sport and Physical Activity (Participants)

C1 What is it you like best about _____?

Instructions to Rater:

Briefly note the substance of the reply to this question below. Pay particular attention to the implied motives as well as any overt statements. Implied may be listed below. Try to classify here the kind of motive indicated by this statement.

C2 Are there things about it you don't like?

C3 What would you change if you could?

Instructions to Rater:

See questions C1 and C2.

C4 Could you describe a regular session of _____? (Supplementary questions if necessary). What do you do? Do you go with some other person? How do you travel? Do you share equipment or cost?

C4 a How would you rate your present attitude to the activity(ies) you are now in?

strongly negative | negative | neutral | positive | very positive

C5 Could you tell me what you thought about (your activity) before you started in it?

C5 supp What do you think caused you to change your attitude?

Instructions to Rater:

Note motives and attitude change. Refer to C5 instructions.

C6 Try to describe the feelings you have when you participate in _____ (Supplementary questions if necessary.) Do you always feel this way? Do you enjoy that feeling?

C7 Are there any other activities you enjoy in the same way?

Instructions to Rater:

Note yes or no and any details.

Satisfactions and Life Changes
Resulting from Involvement

D1 Has participating in _____ had any effect on your life? (Supplementary questions.) Are you busier? Are you less bored? Are you healthier?

1. No change.
2. Slight change.
3. Some change.
4. Much change.
5. Complete change.

Instructions to Rater:

The first assumption is that change is in a positive direction or the individual would not have remained in the activity. This is a subjective evaluation of the changes in the individual's activity pattern, social exchanges, life tempo, subjective feelings expressed by him. Changes in any one of these dimensions or combination of them should enter this combined rating. Add any comment or rationale for your selection in the space.

D2 Do you feel any change in your life now compared to what you felt before taking up _____ ?

1.	No change	Individual indicates that his life style and attitudes to life are unaffected by his participation in physical activity.
2.	Small change	Individual describes small changes either in health or general feelings of well-being. He tends to minimize changes although allowing that some positive changes have occurred. Small increases in numbers of acquaintances should be recorded here if this is the only significant change.
3.	Decided change	Definite changes in one area or a number of smaller changes in various aspects of life indicated by subject. The individual withholds complete enthusiastic response to this question.

4.	A great change	Large change in a number of life areas. Individual indicates most positively that large quantitative change has occurred.
5.	A complete change	Individual states that his life is completely altered as a result of the activity. He feels like a new person; many new friends; new range of activities; different outlook; different life style may be implied.

Instructions to Rater:

The assumption with this question is that any changes occuring in feelings about life resulting from the activity in question, has been in a positive direction. It is unlikely that a subject would continue in an activity if it was making him less satisfied with life. Should this occur, please note the negative direction and details of attitude. Try to identify motivations.

D3 Overall, has your activity increased the number of people you meet?

1.	Meet fewer people	Activity has limited the number of social contacts due to restriction of social or business life to serve the activity or due to dislocation of former life habits resulting in social disengagement.
2.	No change	No significant change in numbers of people met as a result of activity. Possibly have lost contact with former friends but have replaced these in the activity. Numbers of social interactions not changed.
3.	A few more	Individual is unsure of numbers of new people with whom he comes into contact; allows that there are likely a few more people with whom he now is acquainted but the overriding indication is of small change in social interactions.
4.	Yes, quite a few	Significant changes in numbers of people with whom he has contact. Increases in acquaintances and friendships have grown out of the activity.

5.	Many more people	Individual indicates many more social interactions resulting from the activity. Many acquaintances, friends and a number of close friendships have been formed.

Instructions to Rater:

This question deals largely with quantitative dimension of social interaction; how many acquaintances, friends or close friends have been formed. The scale is relative to the individual since each person has his own capacity for social interaction. Some may regard five new acquaintances as many more while others may regard the number as a few. The descriptive caption is not exhaustive. See also B8 and C4.

D4 Of the people you meet in (your activity) how do you feel about the contacts you have with them compared to contacts with other people (not family)?

1.	Superficial	Contacts with people in the activity are only around the activity. He knows only first name of a few key people. No depth of social interaction. The activity per se is the binding factor.
2.	Casual	Very little interaction except around the activity. A number of the group are known. No strong allegiance is felt. Job, club, other social interactions more meaningful and satisfying.
3.	No difference	Subject does not place any special emphasis on his contacts with people within the activity which are about the same as other areas of life.
4.	Some difference	Subject regards the contacts he has with people in the group as different or better; perhaps instrumental to his effectiveness within the activity. Contacts may provide moral support, social comparison, reinforcement, recognition, etc.
5.	Great difference	Subject indicates his contacts within the activity are very different from other contacts he has. Good friendships and interactions apart from the activity have occurred. Activity is an important source of social contact.

Instructions to Rater:

Refer back to B8 and C4 for cross reference.

D5 How does your own family feel about your participation in (your activity)?

1.	Source of Dissension	Family resents this involvement away from the home.
2.	Suspicious	Family regards activity with suspicion as viewed as a means of taking him away from home.
3.	Neutral	Family expresses no strong feelings either way. Activity and its effects not considered important to them.
4.	Pleased	Family expresses pleasure at his involvement. Feels changes in his life worth the effort or any inconvenience.
5.	Enthusiastic	Family are enthusiastic about his involvement in the activity. Attempt to take advantage of activity source and to join in participating. Encourage his continuance and express pride in achievement. Follow his example in their own lives.

Facilities and Equipment as an Influence on Involvement

E1 Did you have any problem getting equipment?

1.	Yes, considerable difficulty	High cost required careful planning or equipment did not fit properly or required fitting and adjustment, or seemed old or unsuitable for the individual.
2.		
3.	Some problems	Cost forced a limited choice of equipment. Had to select less expensive to satisy budget, or equipment caused minor irritation or discomfort. Was not what I really wanted but had to accept. Felt a little uneasy about suitability of the equipment.
4.		
5.	No problems	Was able to find just what was needed with no difficulty. Cost not an important factor in obtaining equipment. Equipment fitted and was easy to wear. No difficulty in fitting right in with the crowd. Felt quite at home with new equipment.

Instructions to Rater:

Evaluate replies for these answers. They may be more implicit than stated directly. Score in between if needs be.

E2 Would you regard the equipment in (your activity) expensive?

Yes No
(Circle one)

Instructions to Rater:

An attempt will be made to have the subject expand on his reply. Try to derive attitude to equipment, etc. through comments.

E3 Are you satisfied with the equipment and dress you now have?

Yes No
(Circle one)

E4 When new lines or styles of equipment come into use, are you quick to acquire them?

Yes No
(Circle one)

Instructions to Rater:

See E2. Attitudes to his role as a style leader or follower may show here. Also, achievement or recognition may appear.

E5 Are facilities easily accessible for your activity?

Yes No
(Circle one)

Instructions to Rater:

Replies to this should be correlated with B3, C1, C2, C3 and C4.

E6 In what ways could things be changed to make it more convenient for you to participate?

Instructions to Rater:

Correlate with B3, C1, C2, C3 and C4.

E7 Would you loan your equipment to a friend or relation to help get them started?

Yes No
(Circle one)

Instructions to Rater:

Note any motivational cues in this reply. Of particular significance is strong negative indicating a heightened concern for equipment which may indicate function of attitudes in self-concept (would you loan yourself?)

APPENDIX D

FOCUSED INTERVIEW-NON PARTICIPANT

Focused Interview Non-Participant

Childhood Sport and Physical Activity Environment

A1 As a child in what kind of activities did you participate for recreation or leisure?

1. Played no sports at any time. Was prevented from all kinds of physical recreation through illness, family attitudes, poverty, etc.

2. Played sports only in required physical education classes. Not active at all in physical recreation. Occasionally took part in non-structured physical activities such as hiking, hunting and fishing.

3. Played sports recreationally when opportunity presented. Not a sport's leader. Not regularly active in physical recreation. Took part in non-structured activities such as hiking, hunting and fishing fairly often (more than two less than four).

4. Played intra-mural sports at school. Regularly enjoyed physical recreation. Participated regularly in non-structured activities such as hunting, fishing or hiking.

5. Played school or recreational league sports. Participated actively in many kinds of physical recreation and outdoor activities.

A2 Did your family participate in these activities with you?

1. Participation was without involvement of other family members.

2. Siblings only participated.

3. Older siblings or age-peer relative - without parental involvement.

4. One parent or near relative or adult sibling.

5. Both parents and siblings.

A2i Inference about family attitude to recreation and to sports.

1. Absolutely negative.

2. Conditionally negative.

3. Neutral.

4. Permissive.

A3 As a teen-ager or young adult, in what kind of activities did you participate for recreation or leisure?

1. Played no sports at any time. Was prevented from all kinds of physical recreation through illness, family attitudes, poverty, etc.

2. Played sports only in required physical education classes. Not active at all in physical recreation. Occasionally took part in non-structured physical activities such as hiking, hunting and fishing.

3. Played sports recreationally when opportunity presented. Not a sport's leader. Not regularly active in physical recreation. Took part in non-structured activities such as hiking, hunting and fishing fairly often (more than two less than four).

4. Played intra-mural sports at school. Regularly enjoyed physical recreation. Participated regularly in non-structured activities such as hunting, fishing or hiking.

5. Played school or recreational league sports. Participated actively in many kinds of physical recreation and outdoor activities.

A4 Could you describe your parent's recreation or leisure activities during your childhood - teen-age - young adulthood?

1. Parents not at home. Parents too busy working. Religious, physical or social prohibition to any form of recreation.

2. Parents have no regular hobbies. Recreation is passive. Listen to radio; read paper; talk; go for drive in car; rarely goes out of doors for recreation.

3. Parents have a quiet recreational life with regular hobbies. Listen to radio; read; talk; "just sit"; occasionally have friends in; activities usually of a quiet social inter-action type. Occasionally attends sport's events as a spectator. Occasionally hunts or fishes.

4. Parents active socially - entertain; dance; play cards; curl; or bowl. Play golf/badminton occasionally. No firm commitment to a sport or recreation but enjoy it when opportunities presented. Recreations largely of a social character. Attend sport's functions as spectator. Regularly hunted or fished.

5. One or both parents very active in sports and physical activity. Played on teams. Attended physical recreation facilities often for own participation. An enthusiastic regular participant. An active sport's booster - season-ticket holder. Went hunting or fishing very frequently. Impatient for opening of the season.

A5 In what leisure activities did your parents participate during their youth?

1. Don't know.

2. Passive.

3. Active.

4. Very Active.

5. Extremely active.

Instructions to Rater:

If a sport and physical activity interest is indicated, try to establish the level of activity for this scale.

A6 How would you rate the importance of recreation and leisure among your family's activities?

1. Of no importance.

2. Of little importance.

3. Of some importance.

4. Considerable importance.

5. Very important.

Instructions to Rater:

Since the real data required here concerns sport and physical activity participation, rate the reply in terms of family participation in sport and physical activity.

A7*a When you were in school, was there an extra-curricular program of activities? (Music, Drama, Sports or special interest)

1. Of no importance.
2. Of little importance.
3. Of some importance.
4. Considerable importance.
5. Most important.

Instructions to Rater:

Watch for sport and physical activity interest and rate replies accordingly.

A7 b Did you participate in any of these activities?

A7 c How did you feel about the various parts of this program?

A7 d What part of your total school experience did you enjoy the most?

A7 e What part did you enjoy the least?

A7 f Were there any teachers, adults or others who were particularly influential in leading you into any of the recreational activities you followed?

* Questions A7 a to A7 f are rated as a composite score in A7.

Activity Involvement History

B1 How did the transition from high school to College (employment) affect your previous recreational or leisure-time pursuits?

B2 From when you left high school until you were married (or age twenty-five), what sort of recreations or leisure-time activities did you follow?

B3 After you were married (or age twenty-five) did your recreations undergo any particular change? Please describe the changes that took place.

B4 During this period of your life, about how much time each week did you spend on recreations or leisure-time activities?

H1 From age twenty to thirty, how would you rate the state of your health?

R1 In your adult life or for the past ten years, what have been your typical leisure activities - daily, weekly, during a month, in season?

R2 What has been your experience with arts and crafts?
Have you ever made things creatively?
What about it did you enjoy the most - the least?
Was it a solitary occupation or done as part of a group?
Are you still involved with this hobby?
Why did you give it up?

P1 Have you ever in your life played competitive sports?
How did you get started in this?
Are you still involved?
What did you enjoy about it the most - the least?

R3 Have you ever been involved in theatrical or musical productions?
How did you get started in this?
Are you still involved?
Why did you give it up?
What did you enjoy the most - the least?

R4 What has been your favorite leisure-time activity?
What is the most important benefit you have derived from it?

R5 Have you ever participated in out-of-doors wilderness-type activities such as mountaineering, white water canoeing or big game hunting?
How did you get started in this?
Do you still participate?

What did you enjoy about it the most - the least?
Why did you give it up?

R6 What has been your experience with craft, gardening, or technical recreations?
Do you enjoy these?
How long have you been interested in them?
What is it about this (these) that you enjoy most - the least?
Why did you give up these activities?
About how much of your leisure time did this occupy?

P2 Have you ever been involved in physical fitness activities?
What prompted you to start?
Did you derive the benefit you had hoped you would?
What caused you to retire from this activity?
Do you feel any different now?
Do you now get enough exercise in your daily round?
Have you any plans to resume?
Can you recall the circumstances of your start?
What do you now do for exercise?

S1 Everyone has a social life to some degree. Some persons are much more socially inclined than others. They seek and enjoy parties, dances and social events which bring together groups of men and women.
What are your feelings about these kinds of social activity?

P3 When was the last time you were involved in an athletic activity?
Could you describe it?
Did you enjoy it?
Why (not)?

S2 To what degree do your friends participate with you in your recreational pursuits?

P4 Have you ever wanted to be a professional class athlete (e.g.) Baseball Player, Hockey Player, Tennis Pro, Golf Pro, etc.
What was the attraction to you?

R7 Have you ever wanted to produce a fine work of art?
Reason?
Have you ever tried?

H2 What for you has been the most useful rules for healthful living?

P5 How do you feel about strenuous activity such as running, weight-training and swimming?

R8 How do you feel about the performing arts such as acting, singing or playing a musical instrument?

S4 Do you have any close friends of the same age as you who participate in sport and physical activity?
Have you been invited to join them?
Was the experience satisfying?
Do you ever wish you were invited?

R9 Are there activities in which you wished you could have been involved?
What prevented you from being involved in them?

P6 Do you ever wish you could dance or skate like a Pro?
Do you participate in these kinds of activities now?

APPENDIX E

IMPORTANCE RATING OF VARIOUS LIFE ACTIVITIES QUESTIONNAIRE (I.R.V.L.A.)

Life Activity Importance Rating

A. 1. Additional training for your job.
2. Time to yourself for reading, thinking or napping.

B. 1. Repair maintenance or improvement of the mechanical equipment you own.
2. Attend an office party or large social gathering.

C. 1. Opportunities to play with your children.
2. Following of personal hobbies, past-times or interests.

D. 1. Getting together with friends or relatives for a social evening or weekend.
2. Entertainment and socializing, featuring involvement of your wife.

E. 1. Additional training for your job.
2. Repair maintenance or improvement of mechanical equipment you own.

F. 1. Maintenance of health through regular physical fitness.
2. Getting together with your friends or relations to perform some job of common interest.

G. 1. Personal maintenance of home or other real estate.
2. Time to play, frolic or participate in an activity involving your children.

H. 1. Personal hobbies, past-times or interests.
2. Maintenance of health through regular exercise.

I. 1. Participating in church-related activities such as choir, drama, group committees, board, couple's club.
2. Attending an office party or large social gathering.

J. 1. Attend school concert to see children perform.
2. Travel, primarily connected with your job.

K. 1. Personal maintenance of your home or other owned real estate.
2. Regular participation in an active sport.

L. 1. Free discretionary time for activities of your own choosing.
2. Entertainment or socializing featuring the involvement of your wife.

M. 1. Visiting, talking and interacting with your friends.
2. Extra work at home or after hours to stay abreast of job demands.

N. 1. Time to play, frolic or participate in an activity involving your children.
2. Strenuous sports participation.

O. 1. Repair, maintenance or improvement of the mechanical equipment you own.
2. Quiet moments to chat with your wife.

P. 1. Entertainment and socializing featuring involvement of your wife.
2. Travel, primarily connected with your job.

Q. 1. Time to play, frolic or participate in an activity involving your children.
2. Observance of your religious practices or other devotional acts.

R. 1. Quiet moments to chat with your wife.
2. Regular participation in an exercise plan.

S. 1. Participation in church-related activities e.g. choir, drama, group committees, board couple's club.
2. Free discretionary time for past-times of your own choosing.

T. 1. Regular outings to hunt, fish, ski or hike.
2. Maintenance of your automobile.

U. 1. Opportunity to play with children.
2. Communicating or interacting with wife.

V. 1. Strenuous sports participation.
2. Extra work at home or after hours to stay abreast of job demands.

W. 1. Regular church attendance.
2. Improvement of home, e.g., decorating, renovating, remodelling.

X. 1. Additional training for your job.
2. Regular church attendance.

Y. 1. Getting together with friends or relations to perform some job of common interest.
2. Time by yourself for reading, thinking, or napping.

Z. 1. Observance of your religious practices and devotional acts.
2. Communicating or interacting with your wife.

AA 1. Escorting your children to a school concert.
2. Getting together with relations for a social evening or weekend.

BB 1. Regular participation in an exercise plan.
2. Regular church attendance.

APPENDIX F

SECONDARY PARTICIPATION IN SPORT

Secondary Participation in Sport

1. Do you attend sporting events as a spectator?

Twice a Week	Every Week	More than Once a Month	Occasionally	Never

2. Do you watch sporting events on television?

More than twice a Week	Regularly twice a Week	Each Week	Infrequently	Seldom

3. With what frequency do you read the sport's page or listen to the radio sport's broadcasts?

Rarely Miss 10/12 ed	Mostly Read 4/6	Miss as Often as Read 3 Times	Occasionally Read Sports	Never Read

4. Do you discuss sporting events with others?

Rarely	Often	Not Too Often	Occasionally	Never

5. How would you consider yourself as being informed about popular sports events reported in the news media?

An Authority	Knowledgeable	Aware	Uninformed	Disinterested

6. Please rate your attitude to the popular sports scene.

Enthusiastic	Favorable	Neutral	Apathetic	Disinterested

APPENDIX G

LIFE ACTIVITY REPERTOIRE DATA

Life Activity Repertoire for Men Non-Participant in Sport and Physical Activity

Subject	Activity Classification*				
	Sedentary	Quiet	Light Active	Active	Very Active
N 1	3	5	3	3	0
2	2	6	0	1	0
3	4	5	4	2	0
5	4	10	2	3	3
6	7	2	3	2	2
9	6	5	3	3	0
10	3	4	3	1	0
11	4	4	2	6	0
12	6	5	2	5	0
13	3	5	1	1	1
14	6	5	2	1	0
15	5	7	1	3	1
16	5	7	2	4	0
17	4	2	3	7	0
18	2	6	4	5	1
19	5	6	3	2	2
20	5	5	4	3	0
21	8	6	3	4	0
22	4	10	4	4	0
23	6	8	6	2	0
24	4	4	1	1	0
26	3	4	3	3	0
27	7	5	3	3	1
28	7	4	4	5	0
30	3	4	1	5	1
	116	134	67	79	12
	$\bar{X}$ = 4.64	$\bar{X}$ = 5.36	$\bar{X}$ = 2.68	$\bar{X}$ = 3.16	$\bar{X}$ = .48

*Based on Passmore and Durnin (1955:801) Energy Cost of Various Activities.

Life Activity Repertoire for Men Active in Sport and Physical Activity

Subject	Activity Classification*				
	Sedentary	Quiet	Light Active	Active	Very Active
P 4	2	4	1	3	3
5	2	4	1	3	2
6	2	5	1	2	2
7	1	3	0	1	3
8	2	4	2	5	2
9	3	8	1	5	3
10	2	5	3	4	2
11	3	4	2	3	1
12	2	4	1	4	0
13	3	8	4	3	4
14	3	8	2	4	3
15	4	4	2	4	2
16	3	0	2	4	2
17	1	6	3	7	3
18	8	4	7	2	1
19	3	6	3	4	1
20	3	3	4	2	2
21	2	0	2	3	2
22	2	2	2	3	2
23	2	3	3	4	2
24	4	7	2	4	2
25	6	5	2	6	1
26	3	3	2	4	3
27	3	4	1	4	1
28	6	4	3	5	1
	75	108	56	93	50
	$\bar{X}$ = 3.00	$\bar{X}$ = 4.32	$\bar{X}$ = 2.24	$\bar{X}$ = 3.72	$\bar{X}$ = 2.0

*Based on Passmore and Durnin (1955:801) Energy Cost of Various Activities.